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DUSI : A RESURVEY

by

S.Guhan and K.Bharathan

MADRAS INSTITUTE OF DEVELOPMENT STUDIES
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Dusi : A Resurvey

I Introduction

The village of Dusi in the Cheyyar taluk of North Arcot district in Tamilnadu is located six miles to the south of Kancheepuram, which is 45 miles to the south west of Madras. Kancheepuram, the headquarters of Chengalpattu district, is an old temple town and an important marketing centre especially for handwoven silk sarees. Dusi is one of the five villages in Tamilnadu surveyed in 1916-17 by Prof.Gilbert Slater and his students.[1/] The original survey of the village was done in 1916 by P.Krishnama Acharya (hereafter, PK) a student of Slater's and a native of the village. It was resurveyed in 1937 by A.K.Veeraraghavan (hereafter AKV) as part of the resurveys of "Slater villages" organised by the Madras University under the supervision of Professors P.J.Thomas and K.C.Ramakrishnan.[2/] The next resurvey was done by the Agro-Economic Research Centre of the University of Madras (AERC) in 1959.[3/] A brief note on the village was also prepared by M.R.Haswell from the University of Oxford after a visit to it in 1961.[4/]

The study is part of a programme, undertaken by the Madras Institute of Development Studies, to resurvey again all the five Slater villages in Tamilnadu.[5/] It was carried out between September 1983 and February 1984 by the present authors with the support of T.Ganesan, and G.Jothi in respect of detailed field investigation. K.Bharathan was entirely responsible for the enquiries pertaining to weavers in terms of supervision, personal participation, analysis and report-writing.

In the first phase of the survey, we completed a census of all the households in the village to elicit demographic particulars and data in regard to housing, literacy, education, occupation, ownership and cultivation of land, ownership of other assets and a brief family history with special reference to migration. Weaving households, i.e. those which had at least one person participating in the weaving industry either as a worker or as a supervisor, were separated out. In their case, a further set of questions were included relating to the product, number of looms active and idle, loom attachments, the name of the master-weaver or employer and the number of paid employees. Data on land holdings obtained from household enquiries were cross-checked and reconciled with the village accounts. In the second phase, general enquiries were undertaken about the village as a whole with particular reference to facilities and institutions. The third phase was devoted to intensive enquiries of selected samples and for case studies. These included a 10 per cent stratified random sample survey of weaving households and sample surveys of cultivators and agricultural labourers. These structured enquiries were supplemented by numerous informal conversations. Data were processed as far as possible at the conclusion of each phase so that leads could be followed up and verifications made as the enquiry proceeded. We have also used a variety of secondary data from settlement reports, censuses, village accounts, irrigation statistics and government reports.

While our survey was in progress, John Harriss from the University of East Anglia undertook a study of a sample of 47 households in order particularly to trace changes in asset holdings, debt and investments since 1973 at which time Dusi, along with 11 other villages in N.Arcot, was studied as a part of the Cambridge Project.[6] We have been able to benefit from some of his findings as well.

Further methodological details will be found at appropriate places in this paper.

Dusi is a large village and, relative to its population, the land available for cultivation is limited. Agriculture in Dusi has been mainly paddy cultivation, partly rain-fed and partly dependent on tank irrigation from the Dusi-Mamandur tank. This tank is one of the largest tanks in Tamilnadu and a fairly reliable source; besides, Dusi is favourably located vis-a-vis the tank. Even so, incomes arising from agriculture are greatly subject to seasonal vicissitudes as our own survey which refers to a period of drought would illustrate. Since the early 1960s, weaving has come to provide a major additional and supplemental source of livelihood to Dusi's population. The socio-economic conditions of weaving households and the processes that have operated to induce the supplementation of agriculture with weaving are of particular interest. In the same period, high-yielding shorter duration seed varieties, and pumpset irrigation to a lesser extent, have helped to strengthen the agricultural base. Located close to Kancheepuram, families in Dusi are also able to find out-working opportunities, short-term and permanent, in the town. As a result of this set of factors, Dusi has been able to sustain an accelerated population growth in the last three decades. Another feature of interest is that land ownership in the village, which was largely in the hands of Brahmins in the early part of the century, has steadily passed to the non-Brahmin castes, particularly the dominant Vannia Naickers who have been helped by weaving to acquire land from emigrant and non-resident Brahmin landowners.

Against this brief foreground, we describe aspects of the economy and society of the village as we found it during the survey in 1983-84, identifying also changes that

were discernible since the first survey in 1916-subject, of course, to the limitations of the earlier surveys and of our own. The somewhat fragmented information in the earlier sections is pulled together in the concluding one which attempts to provide an overall picture of change as well as of the present situation.

Our outstanding debt, of course, is to the people of Dusi for their hospitality, patience and generous cooperation. Government officials at various levels were cooperative. We are grateful to the Indian Council of Social Science Research for the grant which made the survey possible. We are indebted to our colleagues K.Nagaraj, V.K.Ramachandran and S.Subramanian for their help in the planning of the survey and for detailed and painstaking comments on earlier drafts. J.Robinson provided excellent secretarial support.

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1/ Gilbert Slater (ed) <u>Some South Indian Villages</u> Oxford University Press 1918.

2/ P.J.Thomas and K.C.Ramakrishnan (ed) <u>Some South Indian Villages: A Resurvey</u> University of Madras 1940.

3/ Agricultural Economics Research Centre, University of Madras <u>Dusi Village</u> November 1962 (Unpublished).

4/ M.R.Haswell <u>Economics of Development in Village India</u> Routledge and Kegan Paul 1961.

5/ Resurveys of two of these villages viz., Iruvelpattu (S.Arcot) and Palakurichi (Thanjavur) have been brought out in S.Guhan and Joan P.Mencher <u>Iruvelpattu Revisited</u>, Working Paper No.28, September 1982 and S.Guhan <u>Palakurichi : A Resurvey</u> Working Paper No.42 November 1983, both being publications of the Madras Institute of Development Studies.

6/ The Cambridge Project resulted in B.H.Farmer (ed) <u>Green Revolution? Technology and Change in Rice-Growing Areas of Tamilnadu and Sri Lanka</u> MacMillan 1977.

II Characteristics of the Population

The Settlement

The road to Vandavasi crosses the river Palar just beyond the southern boundary of Kancheepuram. Dusi is the first roadside village in North Arcot district on the Kancheepuram -- Vandavasi road and is located a mile and a half to the south of the Palar. Dusi literally means 'dust' in Tamil and the name is linked, in village memory, to the time when the cavalry (Dusi-Padai or dust-forces) of the Pallava kings (6th to 9th century AD) was believed to have been stationed in the tract where the village came to be situated.

The more or less contiguous main habitations of the village -- Dusi, Anumanthapettai, Vinayakapuram, and Periyar Nagar -- are to the east and west of the highway. Nathakollai is a distinct hamlet about a mile from the road to the southwest of the main habitation and adjoins the village of Vagai. The tall bank of the Dusi-Mamandur tank forms a hilly border on the western periphery. From earlier surveys, some idea of the steady physical expansion of the village can be gathered. The original cluster of Dusi was about half-a-mile from the road to its east around a habitation known as Sadagopapuram established by Vaishnavite Brahmins who had migrated from Karnataka. Anumanthapettai on either side of the road contained the offices of the Deputy Tahsildar, the Sub-Registrar of Assurances, the Police Station and quarters for the police staff. By 1937, the Office of the Deputy Tahsildar had been shifted to Cheyyar (officially known as Tiruvattipuram). Pudu Dusi (or new Dusi), now known by the name of Vinayakapuram, is reported to have been formed around 1927. Periyar Nagar has come up in the last decade and is an encroachment on the

bed of Sitheri, one of the tanks in the village. At present, the main settlement in Dusi is a crowded and bustling place with a number of shops and tea stalls and a touring cinema theatre on the roadside.

In 1937, AKV noted that the "agraharam (i.e., Brahmin habitation) was isolated from the rest". It is no longer so. The original agraharam which consisted of four streets around the main temple with 72 houses being occupied by Brahmins in 1916 has vastly shrunk in size and has changed its identity. Only 33 houses are now to be found in this area and half of them are occupied by families of other castes. Mudaliar and Chettiar families are mostly to be found in Anumanthapettai to the west of the highway while Vannia Naickers, who are the predominant caste, live in almost all parts of the village. Nathakollai is mainly a Naicker hamlet. The distribution of houses, households and population among the habitations is shown in Table 1.

Demographic experience

Table 2 gives the population figures according to the decadal censuses during 1901-81 along with growth rates for Dusi, Cheyyar taluk, and Kancheepuram town. It can be seen that the 1950s have been the water-shed in Dusi's demographic history since the turn of the century. In the five decades from 1901 to 1951, population increased by about 50 per cent while the three following decades have witnessed a growth of 64 per cent. Data on births and deaths furnished in AKV's survey (1937) for 1916-37 indicate a natural increase rate of around 1.6 per cent per annum in that period. If that be so, emigration has been particularly pronounced in 1931-51. The depression and a series of drought years between 1934 and 1936 and again during the 1940s would appear to be the main causal factors. It is interesting that in 1911-21,

Dusi has recorded a high growth rate despite the fact that this decade witnessed epidemics of cholera and plague (1917) and of influenza (1918). Possibly Dusi received migrants from other villages and from Kancheepuram in the epidemic years helped by three good agricultural seasons in 1920-22.

In 1950-80, average decadal growth at around 20 per cent is nearly double that in the previous period. The census figures would indicate that population growth in this span was bunched in the 1950s and in the 1970s with the 1960s being a depressed decade but it is difficult to explain this kink since there was a steady growth in weaving and several good seasonal years in that decade; we can not therefore rule out an undercount in 1971, a drought year in which temporary emigrants might have been left out. Taking the three decades together, we will have to look to the emergence of weaving since the early 1960s, improvements to agricultural productivity, and a growth in trade and services consequent to these as the major factors that can explain Dusi's ability to sustain an accelerated population growth. The proximity of the village to a growing town like Kancheepuram is another factor: Dusi provides a staging post to migrants to the town and also hosts persons living in the village and working in Kancheepuram.

Caste composition

The communal and caste composition of Dusi in 1983 are shown in Table 3. Dusi has a Muslim population of 164 (5.4 per cent of the total) and seven Christians (in two families). Vannia Naickers with a population of 2085, or 69.3 per cent of the total, are numerically the dominant caste. There are as many as 19 other castes among the Hindus. They can be grouped in two broad categories. In the first category would be the castes traditionally

associated with ritual functions, trading or cultivation. There are ten such in this group consisting of Chettiars, Mudaliars, Naidus, Brahmins, Valluvars, Pandarams, Nairs, Nadars, Pillais and Reddiars. Out of a total of 530 in these castes, Chettiars, Mudaliars, Naidus and Brahmins together account for 421 or nearly 80 per cent. The second category can be identified with traditional craft or service occupations. There are nine castes in this group viz., Asaris, Pandithar, Odayar, Vannar, Yadhavar, Gramani, Jogi, Karunigar and Parvatharajakulam; these castes account for a total number of 203. There is no Harijan colony in Dusi but there are two Harijan families (with seven persons), both being in Government employment. There are also 14 Irulars or Villiyars in five families belonging to a Scheduled Tribe.

Thus the Hindus in Dusi are comprised in several castes but Naickers dominate; among others "forward castes" such as Chettiars, Mudaliars, Naidus and Brahmins constitute a major proportion; the presence of Harijans is accidental while that of Irulars, who are a Scheduled tribe, is to be noted; and the Muslim population is not insignificant.

Changes in caste composition 1937-83

Caste-wise population figures are available in the 1937 (AKV) and 1959 (AERC) surveys while the original survey of 1916 (PK) gives only numbers of households according to castes. Table 4 which reproduces this data will help in understanding the changes that have occurred in the last six to seven decades. There has been a striking reduction in the Brahmin population from over a quarter of all households in 1916 to less than 2.5 per cent of the population in 1983. The out-migration of Brahmins from Dusi has not been a sharp exodus at a point of time but an extended process. Twenty four households had left during 1916-37 and AKV noted

in 1937 that the 'agraharam presents a very deserted appearance as a number of houses which have been left vacant were derelict". In 1937-59, the process seemed to have slowed down somewhat since only nine families are reported to have left in these two decades. In 1959-83 we find a further reduction of 17 households. Informants in the survey identified a number of "pull" and "push" factors for explaining Brahmin emigration. The trend in 1916-37 was set by early access to higher education helped by Dusi's proximity to Kancheepuram and its relative closeness to Madras; and the subsequent opportunity and preference for urban white collar employment. During the 1930s and 1940s, depression, a series of drought years, and post-war inflation made many Brahmin families join their sons and relatives who had found jobs in Madras, Kancheepuram and elsewhere. The post-1959 trend was however related to a different set of factors: the passage of tenancy and ceiling legislations, growing demands from the tenants, and opportunities to dispose of land to erstwhile tenants who had acquired some surplus cash from weaving. In section V we discuss the extent to which Brahmin emigration is reflected in their ownership of land in the village.

An examination of Table 4 suggests that between 1937 and 1983 there has been some in-migration of Muslims and Naickers and a relatively large influx of Chettiars and Naidus. Some of the Muslims are return migrants from Penang. On the other hand, out-migration is indicated in the case of the castes associated with traditional crafts and services. The 1959 (AERC) survey notes that in the previous two decades a number of new castes such as Pandarams, Nairs, Reddiars and Pillais as well as the Irulars had moved into the village. The Nadars are also relatively recent migrants. In sum, while the Brahmins have trickled out, the castes and communities that can be broadly linked with cultivation and trading, and more recently weaving, have increased their numbers. Those involved in crafts, service and poorer occupations have dwindled on one hand and become more heterogenous on the other.

Household sizes, sex ratio and age distribution

The overall household size in Dusi is 4.7. Weaving households are noticeably larger than non-weaving households and within the latter, Naicker households are smaller than those of others. These differences are brought out in Table 5. In the sex ratio (females per 1000 males) as well, as Table 6 shows, there is a clear divide between weaving and non-weaving households with the former having a distinctly lower ratio. Relating Tables 5 and 6, the hypothesis that suggests itself is that weaving helps to sustain a larger family size, or conversely that larger families are induced to shift into weaving, while male emigration provides an outlet in the case of non-weaving households.

Table 7 gives the age distribution for males and females and for non-weaving and weaving households. The relatively smaller proportion of males in the 15-24 age group in non-weaving (11.3 per cent) vis-a-vis weaving households (22.3 per cent) supports the hypothesis of single male emigration for work outside in the case of the former. The inter-related aspects of household size, sex ratio and age distribution are discussed further in section VII for weaving households.

Broad occupational structure[1/]

The Crude Worker Participation Ratios (CWPR) for Dusi according to the Censuses in 1961, 1971 and 1981, and as per our survey of 1983, are given in Table 8. The ratios for rural N.Arcot and for rural Tamilnadu are also furnished. It is not feasible to deduce any trends from the Census figures on account of definitional changes. Besides, the figures suggest a definite under-count of female workers in 1971 and in 1981. In 1981 for instance according to the

Census abstract there were no marginal workers at all in Dusi which is palpably incorrect. Our survey figures indicates an overall CWPR of 52.6 with 65.6 for males and 40.0 for females. Participation rates are higher in Dusi than the averages for rural Tamilnadu or rural N.Arcot and rather more so for females.

Table 9 gives the composition of the work force under three main categories viz., (i) agriculture (ii) weaving and (iii) non-agriculture (other than weaving).[2/] The proportion of the agricultural work force to total workers in Dusi is 41.7 per cent as compared to nearly 80 per cent in rural N.Arcot or in rural Tamilnadu. This is so because 36.5 per cent of the workers in Dusi are engaged in weaving. Non-agricultural occupations, other than weaving, account for 21.8 per cent of all workers.

Table 10 shows the involvement of Naickers and others in the three broad occupational categories. Nearly 90 per cent of workers amongst Naickers are engaged in agriculture and in weaving. They constitute 87 per cent of the agricultural work force and 90 per cent of weaving workers. In the non-agricultural (non-weaving) work force, Naickers are only about a third. More than 60 per cent of the workers belonging to other castes are in non-agricultural occupations other than weaving; 23 per cent in agriculture and 16 per cent in weaving.

Dependents

Non-workers, consisting of students and other dependents constitute 47.4 of the total population yielding an overall ratio of non-workers to workers of 0.90. Table 11 gives the ratio for different castes and separately for non-weaving and weaving households. Naickers have a non-worker to worker ratio as low as 0.72 while it is 1.49, or more than

twice that, amongst others. This is connected with the fact that a substantial number of Naicker households are engaged in weaving. Among weaving households, the ratio is only 0.63 and this, as discussed in section VII, is due to the widespread involvement of children in the profession.

In the total population, 199 persons or 6.6 per cent are above the age of 60. We found that about 15 per cent of this age group, or 29 of them, were destitute or dependent on families who were themselves living in extreme poverty. Typical examples were old parents of agricultural labourers and single women who were widowed or deserted. Old age pensions (OAP) being extended by Government covered only 7 cases. Several of the needy persons had applied for pensions but had been kept waiting for years for "vacancies" to occur under the ceilings imposed for OAP or had been told that they did not qualify for pension because they were not totally "destitute". The real demand for OAP in Dusi is thus four times its availability.

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1/ Different occupational groups are dealt with in detail in sections VI and VII.

2/ In the survey, workers were classified as such according to their usual status and according to the primary occupation which accounted for the major part of his or her working time.

Table 1: Habitation-wise distribution of population

	Houses	Households	Population
1. Dusi (including Anumanthapettai and Vinayakapuram)	430	495	2327
2. Periyar Nagar	31	33	128
3. Nathakollai	79	107	555
	540	635	3010

Table 2: Population growth rates 1901-81

	Population of Dusi	Growth rates Dusi	Cheyyar	Kancheepuram
1901-11	1196	5.9 (105.9)	15.4 (115.4)	16.7 (116.7)
1911-21	1266	25.8 (133.2)	9.2 (126.0)	14.0 (133.0)
1921-31	1593	7.3 (142.9)	8.5 (136.7)	6.3 (141.4)
1931-41	1710	-0.5 (142.2)	7.7 (147.2)	14.4 (161.7)
1941-51	1701	6.5 (151.2)	5.1 (154.7)	13.6 (183.7)
1951-61	1808	30.7 (198.0)	5.6 (163.4)	9.3 (200.8)
1961-71	2369	1.2 (200.5	9.7 (179.2)	19.4 (239.7)
1971-81	2398	23.8 (248.2)	15.9 (207.7)	18.4 (283.8)
1981	2969			

Note: Population figures for Dusi relate to the beginning of each decade. Figures in parenthesis are indices at the end of the period with 1901 = 100.

Table 3: Communal and caste composition of population 1983

	Households	Male	Female	Total
1. Naickers (Vanniars)	442	1029	1056	2085
Other Caste Hindus-I	106	259	271	530
2. Chettiars	30	75	70	145
3. Mudaliars	24	62	65	127
4. Naidus	16	35	40	75
5. Brahmins	16	36	38	74
6. Valluvars	10	25	26	51
7. Pandaram	3	10	10	20
8. Nair	3	6	9	15
9. Nadar	2	6	8	14
10. Pillai	1	2	3	5
11. Reddiar	1	2	2	4
Other Caste Hindus-II	44	97	106	203
12. Asari	9	24	26	50
13. Pandithar	9	15	18	33
14. Vannar	5	13	20	33
15. Odayar	6	13	13	26
16. Yadhavar	4	11	7	18
17. Gramani	3	7	8	15
18. Jogi	5	7	7	14
19. Karunigar	2	4	5	9
20. Parvatharajakulam	1	3	2	5
21. Harijans	2	4	3	7
22. Irulars	5	7	7	14
23. Muslims	34	84	80	164
24. Christians	2	4	3	7
	635	1484	1526	3010

Table 4: Changes in caste composition 1916-1983

	1916		1937		1959		1983	
	HHs	No	HHs	No	HHs	No	HHs	No
1. Naickers	150	NA	180	771	293	1190	442	2085
2. Other caste Hindus-I[1] of whom:	82	NA	76	329	114	422	106	530
Chettiars	NA	NA	8	32	21	78	30	145
Mudaliar	NA	NA	NA	NA	22	90	24	127
Naidus	NA	NA	2	7	16	48	16	75
Brahmins	66	NA	42	194	33	112	16	74
3. Other caste Hindus-II[2]	5	NA	27	160	32	144	44	203
4. Harijans	-	-	-	-	-	-	2	7
5. Irulars	-	-	-	-	4	11	5	14
6. Muslims	11	NA	11	56	27	113	34	164
7. Christians	-	-	-	-	2	4	2	7
Total	248	1126	294	1316	472	1884	635	3010

1/ Includes Chettiars, Mudaliars, Naidus, Brahmins, Valluvars, Pandaram, Nair, Nadar, Pillai and Reddiar.

2/ Includes Asari, Pandithar, Vannar, Odayar, Yadhavar, Gramani, Jogi, Karunigar and Parvatharajakulam.

Table 5: Household sizes 1983

	Non-weaving Households	Weaving Households	All
Naickers	3.9	5.1	4.7
Others	4.7	5.3	4.8
Total	4.3	5.2	4.7

Table 6: Sex ratios 1983

	Non-weaving Households	Weaving Households	All
Naickers	1197	966	1026
Others	1108	779	1033
Total	1148	943	1028

Table 7: Age Distribution 1983

(per cent)

Age Group	Non-weaving Households			Weaving Households			All		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
0-4	14.7	13.5	14.0	10.9	14.5	12.6	12.5	14.0	13.3
5-9	12.6	10.5	11.5	14.2	13.3	13.8	13.5	12.0	12.8
10-14	10.6	12.8	11.8	13.4	12.5	13.0	12.3	12.6	12.5
15-19	5.8	10.0	8.0	11.5	9.4	10.5	9.1	9.7	9.4
20-24	5.5	8.7	7.2	10.8	7.9	9.4	8.6	8.3	8.4
25-29	7.1	9.3	8.3	5.8	9.0	7.3	6.3	9.1	7.7
30-34	7.4	5.1	6.2	5.8	3.8	4.8	6.5	4.4	5.4
35-39	8.5	6.2	7.3	6.3	7.7	7.0	7.2	7.0	7.1
40-44	5.5	4.4	4.9	4.5	7.1	5.8	4.9	5.8	5.4
45-49	5.3	4.6	5.0	5.4	5.0	5.2	5.4	4.8	5.1
50-54	3.4	3.4	3.4	3.0	3.2	3.1	3.2	3.3	3.2
55-59	3.7	3.5	3.6	3.0	2.5	2.7	3.3	2.9	3.1
60-64	4.2	2.5	3.3	2.2	1.5	1.8	3.0	2.0	2.5
65-69	2.3	1.7	2.0	1.9	2.7	1.3	2.0	1.2	1.6
70-	3.4	3.8	3.5	1.3	1.9	1.7	2.2	2.9	2.5
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table 8: Crude Worker Participation Ratios

Dusi	Male	Female	Total
1961	67.9	37.6	52.4
1971	60.9	29.7	45.1
1981	57.2	16.1	36.6
1983	65.6	40.0	52.6
Rural N.Arcot			
1981	58.0	31.8	45.0
Rural Tamilnadu			
1981	59.8	34.5	47.2

Table 9: Structure of the Work force 1983

	Male	Female	Total
Agriculture	257 (26.4)	403 (66.1)	660 (41.7)
Weaving	460 (47.3)	118 (19.3)	578 (36.5)
Non-agricultural other than weaving	256 (26.3)	89 (14.6)	345 (21.8)
Total workers	973 (100.0)	610 (100.0)	1583 (100.0)
Non-workers	511	916	1427
Total population	1484	1526	3010

Table 10: Occupational Structure Caste-wise 1983

	Agriculture	Weaving	Other non-agricultural
Naickers	574 (87.0)	519 (90.0)	119 (34.5)
Others	86 (13.0)	59 (10.0)	229 (65.5)
	660 (100.0)	578 (100.0)	345 (100.0)

Table 11: Ratios indicating dependency 1983

	Workers	Non-workers	Ratio of non-workers to workers
Naickers	1212	873	0.72
Others	371	554	1.49
All	1583	1427	0.90
Non-weaving households	555	776	1.40
Weaving households	1028	651	0.63
All	1583	1427	0.90

III : Social Services

We devote this section to a discussion of a variety of social indicators such as literacy, schooling facilities, housing, water supply and health in terms of their growth and the effective access which different groups in the village have to them.

Literacy and schooling

We adopted a summary criterion in the household census for estimating literacy. Children in school, and others who had gone to school at all, were treated as literates. Pre-school children and those who had never gone to school were treated as illiterates unless they claimed to be literate. This procedure carried the risk of over-estimating "true" literacy since we would have included as literates those who, having gone to school, might have relapsed into illiteracy. However, it is simple and workable while the Census definition of literacy "as the ability to read and write with under-standing" is difficult to administer; in its actual implemen-tation, the Census procedure may also tend to be biased.

The literacy percentages in Dusi according to the survey work out to 44.7 per cent for the total population, 58.3 per cent for males, and 31.5 per cent for females. They are distinctly higher than the Tamilnadu averages of 37.7 per cent, 50.2 per cent and 25.1 per cent respectively. As Table 12 will show, the male literacy percentage in the survey is close to that in the 1981 census while the female literacy percentage in the census is distinctly lower. The latter is only marginally higher than the 1971 figure and is perhaps an under-estimate. The Table also indicates the growth in literacy from 1951 to 1983. During this span, the male literacy percentage has more than doubled and female literacy has improved from a mere 4.4 per cent (1951) to 31.1 per cent (1983).

Table 12 also shows the literacy percentages among weaving and non-weaving households bringing out the fact that literacy among families engaged in weaving is distinctly lower as compared to that in families otherwise engaged. This is clearly relatable to the employment of children in weaving. In weaving households, 39 per cent of children in the age group 5-14 are not in school while the proportion is only 14 per cent in non-weaving households.

The caste-wise position in literacy is reviewed in Table 13. Literacy is almost total among the Brahmins. Even in 1916, PK reported that "in the Brahmin quarter, more than 60 per cent of the inhabitants, both male and female, read and write the vernacular" while in 1937, AKV observed that "the literacy figure in the Brahmin village is very high". Amongst the populous castes, Mudaliars, and Chettiars come next to the Brahmins and record high overall literacy percentages of around 80. The Muslims and the traditional craft and service castes occupy a distinctly poorer position with a percentage around 50. It is interesting that among Muslims, female literacy is higher than for males and this could be due to their women not going out for work. Naickers record the lowest percentages among the populous castes: 37.6 overall with 53.8 for males and 21.9 for females. However there has been progress compared to 14 per cent for males and two per cent for females reported in 1959 (AERC) for Naickers. The Irulars are totally illiterate.

Levels of schooling are given in Table 14 for all those who have completed schooling. Half of all those who have had some schooling have not gone beyond the primary stage. Under 30 per cent have stopped at the elementary level (classes 6 to 8) while less than 20 per cent have finished high school. Only 2.5 per cent of those in the village,

who had gone to school, have proceeded to college or to other levels of higher education. It will also be seen that schooling levels in weaving households compare unfavourably with that reached by others.

School facilities

The elementary school in Dusi is reported to have been established in 1906. An enrolment of 83 children (61 boys and 22 girls) with two teachers was reported in 1916. Enrolment appears to have dropped in 1937 as AKV reported that there were only 52 students (36 boys and 16 girls). The school remained an elementary school in 1959 but enrolment had grown to 133 (88 boys and 45 girls) and one more teacher had been added. In 1967-68, classes 6 to 8 were added and the school was upgraded into a higher elementary school. It now has 297 children on its rolls (167 boys and 130 girls) and a strength of ten teachers. Attendance ranges between 60 and 70 per cent of enrolment. Detentions (or stagnation) work out to 30 to 40 per cent in each class. The main school in Dusi caters to children in some of the surrounding villages as well. There is another school in Nathakollai with classes 1 to 5. It has 105 children (61 boys and 44 girls) on its rolls with two teachers. Children from the more affluent families, generally go to Kancheepuram or to Mamandur for schooling. This also helps them to pursue higher education beyond class 8. Recently, a private organisation has opened an English medium nursery school in the village and has been able to enrol about 65 children despite charging a relatively high monthly fee of Rs. 10; the learning of numerals and alphabets in English is a prestige symbol.

Balwadis have been opened in Dusi, Anumanthapettai and Nathakollai. Altogether 278 children (188 boys and 90 girls) are shown on the rolls. Free noon-meals are given to children

in the balwadis and to children upto age 10 in the schools. The scheme appears to be working reasonably well. After the meal, the children are expected to take their plates home and bring them back after getting them washed. Invariably, we saw some food being taken home for other members of the family which raises the issue of the extent to which the scheme amounts to a supplemental nutritional intervention for the target group.

Non-formal education

In 1937, AKV reported that two newspapers and a Tamil magazine were being subscribed for in the village. By 1959, the number had grown to nine newspapers and to two magazines. At present 20 newspapers and nine magazines are being bought. Newspapers bought by the tea-stalls on the main road are read by a number of their customers.

A library of 200 religious books, in Sanskrit and in Tamil, was mentioned in the 1916 survey as having existed in the village. There is no reference to a library in 1937 and in 1959, the AERC survey records that "there are no libraries or reading rooms in the village". The State Library Authority has one of its branch libraries in Dusi at present. It has about 200 volumes and is located in a small room, under the overhead water tank, which is firmly locked. We never saw it being used. There is also a community television set in the village. It is operated only on the week-ends when there are film programmes. We were told that the educational programmes for farmers were rarely viewed as "they were not popular".

Housing

Over the years, there has been a growing pressure of demand on land available for housesites. When Pudu (or new) Dusi was formed in 1927 as an extension of the original

village, a tamarind orchard had to be cleared for the purpose and AKV noted in this connection that the number of fruit and shade trees had "decreased rapidly" from over 2800 in 1916 to about 900 in 1937. Even in 1937, there was "at present no place available for constructing houses". In the subsequent decades the original village appears to have reached its absolute limits for spatial extension with the result that 31 households moved out in the mid-1970s to set up the new colony of Periyar Nagar encroaching on the bed of the Sitheri tank to the extent of about 10 acres.

Increased pressure on housing is brought out by the fact that the ratio of households to houses has gone up from unity in 1916 and in 1937 to 1.18 in 1983. The formation of Periyar Nagar has somewhat eased the position in Dusi and Anumanthapettai but Nathakollai is particularly congested. At present, 13 per cent of households in Dusi-Anumanthapettai and 26 per cent of households in Nathakollai share a house.

Table 15 gives the types of housing in the village in the years of the various surveys. We can see a definite increase in the proportion of tiled or terraced houses between 1916 and 1937. In 1937-59, additional housing that has come up has been entirely in the form of thatched huts. There is in fact a decrease in this period in the absolute numbers of tiled and terraced houses which is possibly linked with Brahmin emigration. 1959-83 is once again a period of improvement in which the proportion of tiled and terraced houses has grown from 28 to 38 per cent. All the Brahmin households and 84 per cent of Mudaliar households live in tiled or terraced houses. Among Naickers households, the proportion is 32.7 per cent.

There has been distinct progress in electrification since 1959 when there was no street lighting at all and electricity was confined mostly to the <u>agraharam</u> with

Nathakollai being completely in the dark. 299 out of 540 houses or 55.4 per cent are now electrified. Over 80 per of weaving households with looms have had their houses connected with a light or two as it enables them to work late in the evenings. All the Brahmin households and over 80 per cent of Mudaliar households have electricity while Naicker houses are electrified to the extent of 54.5 per cent.

There are 62 street lights now, 52 in the main village and ten in Nathakollai. There is however little consolation in these numbers since we found that as many as 50 of them were not functioning during the best part of our survey period of 5 months.

Water supply

The main sources for drinking water in 1916 and 1937 were the smaller tanks in the village -- viz., Sitheri, Dharma Iyengar Kulam and Hanumantharayankulam -- and the field channels carrying irrigation water. AKV noted that all these tanks were being used for bathing as well as washing and were "contaminated". Moreover in the summer they tended to dry up and people from the village had to go to the Palar for fetching water. In Nathakollai, in 1937 "there was no well at all... and the scarcity of water for drinking and other domestic purposes was keenly felt".

The water supply situation has definitely improved with reference to these conditions but can not still be considered satisfactory. The Panchayat has constructed ten public wells in different places including one in Nathakollai. A overhead tank was constructed in 1972. It has provided 33 house connections and 25 street connections. Of the latter, as many as 13 or more than half, are however not functioning. Water supply from these connections is available in any case only

for an hour in a day and quite often not at all on account of the pump getting into repair. A few hand pumps have been provided in the streets but the malfunctioning rate among them is quite high. The new colony of Periyar Nagar has no protected water supply facilities. The tanks and channels continue to be used; in recent years, irrigation wells have also provided a supplemental source especially in the summer months.

Of private toilets, the village has very few: only 18 in a total of 540 houses.

Health

PK was pleased with the health situation in Dusi in 1916, when according to him, "ill-health itself was rare". All diseases "were treated successfully by native doctors with the help of herbs... The barber is also the native doctor and heals wounds by means of herbs. The barber women are the midwives of the village". AKV found a different picture in 1959: "cholera, tuberculosis, asthma, diarrohea, dysentery, small pox have all made their appearance here". Allopathic medicine had also made its appearance in the form of a rural medical dispensary at Mamandur and supplemented the services of the "local native madicine man". In 1959, the AERC survey reported "an ayurvedic physician and two quacks" in the village.

Dusi now relies almost entirely on allopathic medicine but no public medical facilities are located in the village itself. The nearest Primary Health Centre (PHC) is 18 kms. away at Perungatur. Immunisations are organised from there and visits from vaccinators are few and far between. For the more serious ailments, most people go to Kancheepuram (10 kms) or to the Government dispensary at Mamandur (5 kms).

Dusi has however a thriving private sector in medical care with as many as five self-styled medical practitioners operating in the village. Three of them are para-medical personnel working in Government institutions -- a compounder, a vaccinator and a leprosy inspector -- who dispense medicines on the side. One is a retired attendant in a railway hospital who practises homeopathy and the other is a postal clerk working in Chengalpattu who visits Dusi twice a week for treating patients. All of them are doing reasonably good business and maintain a keen competition for the market.

Most deliveries among the poor still take place at home while those who can afford to do so go to Kancheepuram for the purpose. The Auxiliary Nurse Midwife (ANM) who is supposed to cover Dusi rarely visits Dusi as she lives in a village 13 kms away. Another ANM, working in a nearby PHC, is however a resident of Dusi. She has a brisk private practice in attending to deliveries and charges as much as Rs.100 per case. Very few now patronise the couple of untrained dais available in the village. There is a good demand for abortions. It is catered to by one of the medical practitioners and by the ANM.

The incidence of leprosy was first noted in the 1937 survey. Dusi lies in a leprosy-endemic area and is covered by a leprosy control unit located in Cheyyar. Since 1971, 159 cases have been detected of which 61 have been cured, 18 have died and 25 have migrated. At present, there are 55 active cases representing about 18 per 1000 in the population. Among weavers, failing eye-sight is an occupational disability. We encountered half a dozen cases of persons who had had to give up weaving for this reason.

Communications

Dusi, being located on the main highway between Kancheepuram and Vandavasi, has always been well served with transportation facilities. Nathakollai however has had to wait

until 1982 for a metalled road. There are also metalled roads now from Dusi to its neighbouring villages to the interior such as Kuranganilamuttam and Pallavaram. The village has had a post office for a long time; and, in the last decade, it has been equipped with a public telephone which is intensively used.

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Table 12: Literacy

(per cent to total population)

	Male	Female	All
1951	29.2	4.4	16.8
1961	35.7	8.1	21.6
1971	52.8	20.3	36.4
1981	58.9	21.4	40.1
1983	58.3	31.5	44.7
1983			
Non-weaving Households	66.8	46.6	50.0
Weaving Households	52.2	18.3	35.7

Table 13: Literacy Caste-wise 1983

(per cent)

	Male	Female	Total
1. Naickers	53.8	21.9	37.6
2. Other caste Hindus-I 1/	82.0	50.7	67.1
of whom:			
Chettiars	86.7	70.0	78.6
Mudaliars	88.7	72.3	80.3
Naidus	54.3	45.0	49.3
Brahmins	97.2	92.1	94.6
3. Other caste Hindus-II 2/	57.1	45.2	50.8
4. Harijans	100.0	66.7	85.7
5. Irulars	0.0	0.0	0.0
6. Muslims	44.0	57.5	50.6
7. Christians	75.0	100.0	85.7

1/ Includes Chettiars, Mudaliars, Naidus, Brahmins, Valluvars, Pandaram, Nair, Nadar, Pillai and Reddiar.

2/ Includes Asari, Pandithar, Vannar, Odayar, Yadhavar, Gramani, Jogi, Karunigar and Parvatharajakulam.

Table 14: Levels of Schooling

(per cent)

	Non-weaving Households	Weaving Households	All
Upto:			
Primary (classes 1 to 5)	36.5	64.5	50.0
Elementary (classes 6 to 8)	32.2	25.9	29.1
Secondary (classes 9 to 11)	27.8	8.2	18.4
Post-School	3.5	1.4	2.5
	100.0	100.0	100.0

Table 15: Types of Housing

	Thatched	Tiled or terraced	Total
1916	180	71	251
1937	165	123	288
1959	292	115	407
1983	334	206	540

IV : Agriculture

Land utilisation

Out of the total geographical area of 1921 acres in Dusi, about 1100 acres (or 57 per cent) are Government poramboke i.e. lands put to communal use. The bulk of the poramboke is accounted for by the water spread of the Dusi-Mamandur tank in the village (about 800 acres), the Sitheri tank (111 acres) and the channels. Encroachments on communal lands for cultivation, shops and houses are widespread, the largest of them being the Periyar Nagar colony which occupies about 10 acres in the water spread area of the Sitheri.

The soils of Dusi are largely black loam, fertile and with a good retention capacity. Red loam and red sandy soils are also to be found to some extent. In 817 acres classified as cultivable in the original Settlement Register for the village (1913), 517 acres (or 63 per cent) are registered as wet land (or nanjai). Of the latter, 337 acres qualified to be double crop land i.e. land which could normally expect to have adequate water to grow two irrigated crops in the year. Wet lands in the village are shown under two irrigation sources viz., the Dusi-Mamandur Hissa tank to an extent of 435 acres and the Sitheri tank for the balance of 82 acres.

Irrigation

Annual rainfall in Dusi is of the order of 1090 mm. The northeast monsoon accounts for 47 per cent of it and is rather more important than the southwest monsoon which contributes about 43 per cent. There are about 60 rainy days in the year and they are spread about equally between June-September (South-west) and October-December (northeast)

The Dusi-Mamandur tank, which is the main irrigation source for the village, is one of the largest tanks in Tamilnadu and the second largest in N.Arcot district. It is one of the oldest in N.Arcot district. It is also one of the oldest tanks in the State believed to have been constructed in the 6th century A.D. by the Pallava Kings. The tank is linked to the Palar anicut system. It is fed in part by the Rajakkal channel which takes off from the Palar and directly leads to the Dusi-Mamandur tank; in part by the Dusi channel which after supplying a number of upper tanks empties itself into the Dusi-Mamandur tank; and, in part, by the Thandarai channel from the Thandari anicut constructed in 1975. The tank also has an extensive free catchment area of 11.75 square miles.

The tank has a water-spread area of 5.42 square miles. Visually, it is a vast expanse of water, three miles across at its widest. There are two high level and two low level sluices from which the water is drawn with the high or low level sluices being operated depending on the level of water availability in the tank. With one filling, the tank has enough supply meeting irrigation needs for eight months or more. The ayacut of 4118 acres is spread over 18 villages. Being situated immediately adjacent to the tank, Dusi is favourably located vis-a-vis other villages lower down in the ayacut. Dusi draws water from a channel which also irrigates lands in the neighbouring villages of Vagai and Kuranganilmuttam. In periods of reduced supply, when the low-level sluice is operated, Dusi gets priority as it is situated in the upper reach.

The Public Works Department (PWD) have maintained data for a number of years on the tank level at the end of the Northeast monsoon (i.e. November-December). An analysis of this data for 39 years for which it is available during 1943-83, shows that in 20 years, or about half of this span,

the tank recorded 75 per cent or more of its full level (FTL) of 30.3 feet from the lowest sluice. The reliability of the tank has tended to be clustered in contiguous periods. Thus in these 20 'reliable' years, 17 years are accounted for in five periods: 1943-45 (3 years), 1955-56 (2 years), 1960-64 (5 years) 1969-70 (2 years) and 1975-79 (5 years). Similarly, bad periods also tend to be bunched as in 1949-54 (6 years) 1957-59 (3 years), 1973-74 (2 years) and 1980-83 (4 years): these four spans together account for 15 out of 19 years in which the tank level was less than 75 per cent of FTL. Thus while in the long haul, the Dusi-Mamandur tank has been evenly dependable or disappointing, periods of good storage which would enable two crops in a year or more have alternated with periods of poor supply in which only a single crop can be expected. This pattern has broadly been a function of the rainfall: its aggregate annual volume, the distribution between the seasons, and the sequential pattern of good and poor rainfall over the two monsoons. The contribution of the tank however has been to provide a buffer by storing water from one season to another. In this respect, tank irrigation, although less reliable than canal irrigation, provides the wherewithal for a continuity in cropping, in the years in which it is reliable which seasonally-linked canal irrigation is not capable of.

Irrigation Management

We have evidence in the 1937 (AKV) and 1959 (AERC) surveys that common problems relating to irrigation from the Dusi-Mamandur tank were dealt with by an Irrigation Panchayat. AKV reports that this Panchayat was constituted once in three years by elected representatives from all the villages in the ayacut. The panchayat is not functioning at present having been abandoned some time in the 1970s.[1/] Instead, landholders from the 18 villages served by the tank

tank have formed themselves into an association called the Hissa Tank Irrigation Farmers Sangham. It has six members each from Dusi and Mamandur and two or three members from each of the other villages. The Sangham has been very active and holds five or six meetings in a year. It functions both as a lobby group vis-a-vis the Government and as a forum for discussing problems that arise among the ayacut villages. In the former role, it has petitioned the authorities from time to time on such matters as letting out more water from the Palar into the Rajakkal and Thandarai channels, desilting the sluice bed and supply inlets particularly in the Rajakkal channel, removal of obstructions put up by ryots in the upper reaches, and the repair and readjustment of sluices. The recurrent problems at the intra-village level are encroachments and obstructions on the main supply channels. The Sangham arranges for them to be removed by persuasion, if possible, and force, if necessary

In years of poor supply, a simple turn system is being administered. This consists of letting out water in one of the two main off-take channels from the tank keeping the outlet to the other channel closed. The same process is subsequently repeated for the lands falling under the other main channel. The Sangham employs about 15 to 20 labourers who are assigned the task of regulating flows to the fields in the command of the channel financing the expenditure involved partly from the village common fund and partly on the basis of a per-acre levy on ayacutdars. It is a code of conduct that individual ayacutdars should not interfere with the labourers who regulate the flow under each turn. This is strictly enforced; in fact, when water is being regulated under the turn system, landholders, we were informed, "are expected to keep away from their fields". In Dusi, kudimaramath or the desilting of the main supply channels is undertaken every year and is normally completed in two or three days.

The norm is for landowners to ensure the availability of one or two workers, depending on the quantum of silt clearing involved, per acre of land that they own. Some of them arrange for it by compelling their tenants to contribute free labour or labour at a token wage.

Cooperative water management thus appears to work quite satisfactorily in the case of the Dusi-Mamandur tank. One reason for it is that the Sangham is composed of leading landowners or caste leaders who exercise considerable influence in, and on behalf of, their villages. Its President is NR who is the head of the Naicker panchayat in Dusi and another leading member is VS, the leading Brahmin landlord. Representation from villages lower down is equally powerful and if water is to reach these villages it has to be shared equitably among ayacutdars _en route_ in the upper villages, such as Dusi and Mamandur, as well. Given its composition, the Sangham has also concerned itself with other issues of common interest to landowners. Several of its resolutions are related to such matters as remission of land revenue in drought years, the write-off of loan dues, higher procurement prices, and the withdrawal of additional water cess. A convergence of interests on such issues has been an additional factor in strengthening cooperation on matters relating to irrigation.

Wells

About 40 acres, or 5 per cent of cultivable area, are now irrigated by wells in Dusi while there were no irrigation wells in 1916 and only three wells with a total ayacut of 3.35 acres in 1937. The growth of lift irrigation in Dusi has been constrained by rocky sub-soil conditions and a low water table. Of 27 irrigation wells in the village, 25 are electrified with pumpsets. Ayacuts range from less than an

acre to six acres at the maximum with an average irrigated area of 1.5 acres. Of these 25 wells, nine are shallow open wells going up to a depth of 30 feet while the rest are bore wells with the bore going upto further depths of 100 feet or more. Electrified pumpsets in almost all cases have been installed in the late 1960s and in the 1970s. Seven of them have been financed with loans from the Land Mortgage Bank with the rest being put up by the owners' personal resources. The availability of water is not adequate for water sales on any large scale; only in four cases was water sold at the usual rate of one-third of gross output in kind being charged from the purchaser.2/

Cropping pattern and intensity

Table 16 will show that paddy has accounted for 90 per cent or even more of cropped area in Dusi over a long period. PK (1916) pointed out that groundnut was cultivated prior to World War I but was abandoned when the market collapsed during the war years. In recent years, with the advent of well irrigation there has been some shift towards cash crops such as groundnut, chillies and vegetables. Ragi, which was grown at least upto the late 1930s, has been entirely given up but small areas are grown with pulses.

As might be expected under conditions of tank irrigation, the intensity of paddy cropping has varied from year to year. However, as explained earlier, the Dusi-Mamandur tank has provided a relatively reliable source. PK (1916) asserted that the "Mamandur lake provides water for raising two crops every year with certainty". The Settlement classification of 337 acres, or 65 per cent, of the wet acreage as double crop land also confirms that two crops could, by and large, be expected under the tank. The recent years (1980-83) have been years of poor availability of water and we were not able

to obtain reliable returns on cropping intensity for the 1970s. However, information is available in AKV's survey of 1937 on cropping intensity (i.e. gross to net cropped area) for 19 years between 1916-17 and 1936-37. This is summarised in Table 17 and will give an idea of the pattern that one can expect. The average intensity has been 1.6 in these 20 years. In eight out of the 19 years, the intensity has varied between 1.0 and 1.4. In four years it has varied between 1.5 and 1.9 and in seven years double cropping has been possible over the entire extent of the net cropped area under paddy.

Cultural practices

In 1916, (PK) the "usual method was to sow the seed broadcast in well-ploughed land" and transplanting was not practised at all. By 1937, transplanting was done on some of the land. Even in 1959, seed varieties used were traditional ones such as Sirumani Samba, Kichili Samba and Vaikunta, the same as what were reported to be in use two decades earlier. Only organic manure was used in 1916 and the only known pesticide was lime-water. Chemical manures -- super phosphate and bone-meal -- had begun to be used in 1937 but "to a very small extent".

The surveys of 1917 and 1937 refer only to two broadcast crops, the first harvested in December-January (Marghazhi) and the second either in May-June (Vaikasi) or in August-September (Avani) depending on the rains and the extent of water availability in the tank. High-yielding seed varieties, chemical fertilisers and pesticides are now widely used in Dusi.[3/] The new technology has made a two-fold contribution. Firstly, it has enabled higher levels of output. Pesticides have been especially important because pests are a particular hazard under conditions of low-intensity tank irrigation.

Secondly, shorter-duration varieties of 110 to 140 days used in Samba and Navarai are able to conserve on water availability in the tank.

Agricultural calendar

Under the tank-irrigation regime of Dusi, agriculture continues to be a gamble on the rains but the gamble itself is played dexterously. A two-track system of cropping is practised as explained below. The first crop can be either Puzhuthikal or Samba. In Puzhuthikal (literally mud-furrow) the land is ploughed into furrows after the southwest monsoon sets in July-August (Adi) and the seeds are planted in rows. Traditional seed varieties are used such as Vaikunta, Pisini, Vadamsamba, Kappusamba, Kambakhar and Mosanam. Only organic manure is used. Puzhuthikal is a purely rain-fed crop with a gestation of about 5 months, the harvest being in mid-December (end of Karthigai or beginning of Marghazhi) Yields are relatively low.

In years in which there is a good southwest monsoon, the attempt is made to have a Samba or transplanted crop using high yielding varieties (HYVs) such as IR 20, TKM 9, Ponni and IR 50. Transplantation for Samba takes place in August-September (Avani) and the crop comes up for harvest in December-January (Marghazhi).

By November-December, the performance of both monsoons and the level of water in the tank are known and the second crop or Navarai is planned on their basis. If water is assured, seed-beds are prepared using HYVs; otherwise Navarai has to be broadcast using traditional varieties such as Vaikunta and Kappansamba. Navarai can be harvested by April-May (Chitrai).

If there is still enough water in the tank, Sornavari which is the third crop can be aimed at with sowing or broadcast in April-May (Chitrai) and harvest by July-August (Adi). Table 18 sets out the agricultural calendar and will show that in good years agricultural operations can extend over the whole year.

Yields and returns

In 1937, which was a year of good rainfall, AKV reports that 20 to 27 kalams of paddy (i.e. 1085 to 1464 kg)[4/] could be obtained per acre while with better manuring as much as 35 kalams (1898 kg) was possible. In Puzhuthikal, his estimates for yield were 15 to 20 kalams (814 to 1085 kg).

We made detailed enquiries among a sample of 15 cultivators to get some idea of output levels in 1982-83. The results are summarised in Table 19. The average output in rain-fed Puzhuthikal using broadcast traditional seeds was only about 12 kalams (675 kg) per acre. On account of drought conditions, Samba could not be planted. Navarai yields came to nearly 22 kalams (1169 kg) if broadcast with traditional varieties and slightly more than 27 kalams (1483 kg) if transplanted with HYVs. Highest yields in the sample were 32 kalams (1711 kg) using IR-20 and 43 kalams (2333 kg) using IR-50. These figures do not indicate any significant improvement over AKV's figures for 1937 but then we must remember that 1982-83 was a year of poor rainfall especially in the southwest monsoon. Given the uncertainty in water availability, fertiliser use would have been low. In a good year, with adequate fertilisation, cultivators claimed yields of 40 to 45 kalams (2170 to 2441 kg) i.e. 15 to 30 per cent higher than the best yields reports by AKV (1937). Thus while HYVs have opended up the possibility for achieving higher yields, it can be actualised only if water is assured

and with adequate use of chemical fertilisers. Affluent farmers in a position to bear risks, with easier access to cash, and perhaps owning also a pumpset, would naturally be in a better position to exploit the new technology.

Gross and net income figures in the sample which relate to 1982-83 are given in Table 20. In Puzhuthikal net income per acre is an average of Rs.436. In Navarai, it is of the order of Rs.1400 or Rs.1600 depending on the use of broadcast traditional varieties or transplanted HYVs. Under poor rainfall conditions as in 1982-83, a cultivator growing one rain-fed crop followed by an irrigated crop using HYVs can hope at best to get a net income of around Rs.2000 from an acre. In a normal year which would allow for two irrigated crops viz., Samba followed by Navarai, net income per acre could be of the order of Rs.3000.

Marketing

In 1916, paddy was marketed in the village to "commission dealers from abroad who come with bandies and gunny bags and pay for the paddy and then take it to the market to sell at a profit". PK also reported an informal understanding among the cultivators not to under-sell each other. Ruling prices were Rs.3.5 to 5 per kalam. In 1937, prices had dropped to Rs.2.0 to 2.8 per kalam and ryots were obliged to take the paddy to Kancheepuram at their cost and sell it to the mandis (wholesale paddy shops). AKV noted that "there is no cooperative sale of produce ... even unofficial cooperation in trading is not attempted".

In 1983, paddy was generally sold in the village to commission agents and brokers. Because of the drought, demand was high and prices were favourable. Ruling prices at harvest ranged between Rs.100 to Rs.130 per bag equivalent to Rs.70.6 to Rs.91.8 per kalam. There were not many cases of

lending by mandi owners to farmers, a phenomenon extensively noticed elsewhere in Cheyyar taluk.[5]

Farmers who sold to mandis in Kancheepuram had to incur costs on a commission to the dealers (at Rs.2 per Rs.100), cartage (70 ps per bag), a mahimai or donation for communal charity (0.5 kg in each bag) and a municipal tax (25 ps per cartload). These added up to over 4 per cent of the sale value. Besides, mandi owners tended to cheat in the weighment and to beat down the prices.

Livestock

The livestock figures for Dusi at the time of the various surveys is given in Table 21. Since 1959, the stock of draught cattle has come down while the numbers of milch cattle has more than doubled. There is very little of tractor ploughing in Dusi. Only one tractor is owned in the village jointly by an extended family of weavers; it is not hired out and is mainly used for transport. Sales of draught animals in recent drought years (1980-83) might be one reason for the reduction in their numbers. The increase in milch cattle and in milk marketing is a visible development. Dusi has a cooperative milk society now. Milk is collected by vendors and sold at Kancheepuram. Tea stalls in the village have also contributed to the demand. Loans for acquiring milch cattle under the IRDP have benefited only about a dozen persons and most of the cows or she-buffaloes have been acquired from personal savings.

An interesting feature in Dusi is that there is a shortage, particularly of boys, for minding cattle presumably because many of them are employed in weaving. There are two Yadhavas who between them look after 400 to 500 animals. The animals are herded together in central places in the main village and in Nathakollai, taken out for grazing and brought back in the evening for which the compensation is two meals a day and a rupee per head of cattle per annum.

The nearest veterinary hospital is at Kancheepuram but a Veterinary sub-centre has been functioning in Dusi since 1967. The veterinary inspector in charge is overloaded as the sub-centre covers 10 other villages besides Dusi. Out-patient treatment and vaccinations on a limited scale are provided by this facility.

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1/ For some details on the functioning of the Dusi-Mamandur Irrigation Panchayat see Robert Chambers 'Men and Water: The Organisation and Operation of Irrigation' in B.H.Farmer (ed) Green Revolution? The Centre for Development Studies, Trivandrum have taken up a study of the Dusi Mamandur tank which, when available, would give a detailed picture of local irrigation management.

2/ This is the standard rate for "water-rent" widely prevailing in Tamilnadu.

3/ The Cambridge Project found that in the 12 villages covered by them farmers' contact with agricultural extension agents was the highest in Dusi. Its accessibility, proximity to Kancheepuram and the fact of its having a resident Village Level Worker have helped in this regard. At present, Dusi is the headquarters of the Extension Officer under the Training and Visit Scheme.

4/ In Dusi, one Madras Measure (MM) = 1.13 kg; one Marakkal = 4 MM; One Kalam = 12 Marakkals = 48 MM = 52.4 kg; One bag = 17 Marakkals = 68 MM = 77 kg (net).

5/ S. Janakarajan of the Madras Institute of Development Studies has reported this in his field study of another village in Cheyyar taluk. John Harriss enquiry in Dusi also corroborates the limited involvement of mandi lending in this village.

Table 16: Cropping Pattern

(per cent of gross cropped area)

	Paddy	Millets & Pulses	Oil-seeds	Others	Total
1913	92.9	2.1	5.0	--	100.0
1916-37	94.0	3.8	2.2	--	100.0
1959	98.6	0.5	0.9	--	100.0
1981-82	88.9	1.3	9.7	0.1	100.0

Table 17: Cropping Intensities in Paddy 1916-37

Intensities of:	No. of years
1.0 - 1.4	8
1.5 - 1.9	4
2.0 - 2.1	7
	19

Table 18: Agricultural calendar

Period	Tamil Month	Operations
1. July-August	Adi	Last phase of *Sornavari* harvest; *Puzhuthikal* ploughing and manuring; *Samba* ploughing and seed-bed preparation.
2. August-September	Avani	*Puzhuthikal* second ploughing and completion of sowing; *Samba* second ploughing, transplanting, basal manuring.
3. September-October	Purattasi	*Puzhuthikal* weeding and manuring; *Samba* manuring
4. October-November	Aipasi	Weeding and manuring for *Puzhuthikal* and *Samba*
5. November-December	Karthigai	Beginning of *Puzhuthikal*/*Samba* harvest; seed preparation and ploughing for *Navarai*.
6. December-January	Marghazhi	Main harvest of *Puzhuthikal*/*Samba* *Navarai* transplanting/broadcast. Basal manuring.
7. January-February	Thai	Late *Navarai* transplanting. Weeding.
8. February-March	Masi	*Navarai* manuring and weeding
9. March-April	Panguni	*Navarai* harvest; *Sornavari* broadcast or seed preparation, ploughing, basal manuring.
10. April-May	Chitrai	Final phase of *Navarai* harvest; *Sornavari* planting or broadcast, weeding and manuring.
11. May-June	Vaikasi	Weeding and manuring for *Sornavari*
12. June July	Ani	First phase of *Sornavari* harvest.

Table 19: Gross output levels for paddy 1982

(kg. per acre)

	Average	Range
1. Puzhuthikal	675	461-745
2. Navarai using traditional seeds (broadcast)	1169	963-1249
3. Navarai using HYVs (transplanted)	1483	1155-2333

Table 20: Returns on paddy cultivation 1982

(Rs. per acre)

	Gross Income	Net Income
1. Puzhuthikal	1299	436
2. Navarai using traditional seeds (broadcast)	2132	1401
3. Navarai using HYVs (transplanted)	2579	1590

Table 21: Livestock

	1916	1937	1959	1983
Draught cattle	344	397	322	243
Milch cattle	292	344	158	373
Young cattle	455	245	148	264
Sheep and Goats	64	170	100	103
Poultry	NA	NA	NA	299

V Land and Tenancy

Landholding pattern

The pattern of landholding in Dusi by resident and non-resident individuals, temples and in the form of house sites is shown in Table 22. Out of 763.20 acres under patta, 243.76 acres or 34.2 per cent is under non-resident ownership. Landholders in surrounding villages such as Iyyangarkulam, Vagai, Abdullapuram, Kuranganilmuttam and Mamandur accounted for 113.44 acres, or 47 per cent, of land owned by non-residents while the balance was held by people living in Madras, Kancheepuram, Vellore and other urban locations. A complete caste-wise breakdown of land owned by non-residents was not possible. However, the caste names of Brahmins identify them and we found that 116.47 acres, or about 48 per cent, of land under non-resident ownership was owned by Brahmins.

Caste-wise position

In 1913, i.e., at the time of the initial land revenue Settlement, the Brahmins were the dominant land-owning caste in Dusi with a share of 64 per cent or more in the ownership of land in the village (vide Table 23).[1] At present, Brahmins account for 81.16 acres of resident ownership and for 116.47 acres in land owned by non-residents. Thus altogether they own 197.63 acres or nearly 28 per cent of land owned by individuals (resident and non-resident). This is nearly 11 times their share in the population of the village, which is now 2.5 per cent having come down to that level from about 27 per cent in 1916. In other words, in the case of the Brahmins, divestiture of land in the village -- although appreciable -- has not kept pace with emigration from Dusi.

Table 24 gives the caste-wise pattern of land owned in the village by residents. (We did not find it possible to trace the castes of non-residents except for the Brahmins) Naickers with a 70.6 per cent share constitute the largest single land-owning community. Their share in land, owned in the village by residents, is more or less on par with their population share of 69.3 per cent. The Brahmins come next only to the Naickers and much ahead of the other castes and communities. The average Brahmin holding (9.0 acres) is significantly larger than that in other castes (1.9 acres); the larger landholder in Dusi, with about 31 acres, is a Brahmin; half the number of electric pumpsets in the village are owned by Brahmin landlords.

The distribution of land between resident weaving and non-weaving households is brought out in Table 25. On an average, weaving households own less land, viz., 1.75 acres, as compared to 2.60 acres for non-weaving households. Ownership is significantly less skewed among weaving households vis-a-vis non-weaving households, the respective Gini Coefficients being 0.42 and 0.51. This is to be expected as the larger landowners are in agriculture rather than in weaving.

Table 26 gives land ownership and landlessness among different castes at the household level. Of the 635 l[illegible] households in Dusi, 214 own land in the village and 49 other households own some land outside the village. 372 households or 58.6 of the total, are accordingly altogether landless. Landlessness among weaving households (59.8 per cent) is rather more than with others (57.3 per cent). Landownership, as Table 24 will also indicate, is concentrated among Naickers and the "forward" castes. Landlessness is very high amongst the Muslims and the castes associated with traditional crafts and services. The few Harijans, Irular and Christian households do not own any land.

Concentration of land ownership

The household distribution of land in 1913 and in 1983 among different size-classes is brought out in Table 27. This table includes resident and non-resident ownership. For 1913, we have regrouped the patta-wise details in the Settlement Register according to households from internal evidence. Errors and omissions in this process might, if anything, under-estimate inequality at that time. The reduction in the Gini Coefficient from 0.58 in 1913 to 0.51 in 1983 is not insignificant as an indication of a lessening in inequality among those who own land. In the last 70 years, households owning 10 acres or more have decreased in number from 15 to 8 and their total share in landownership has gone down from 25 to 9 per cent. The largest landowner in 1913 held over 70 acres while his counterpart now has about 31 acres, this being currently the biggest holding in Dusi. This trend in the context of Dusi, is a consequence of the larger (Brahmin) landowners selling out to medium and small peasants, many of them their erstwhile tenants. It has been accompanied by a diffusion in landownership and a proliferation of the smaller holdings. There has been more than a doubling of landholders (resident and non-resident) from 174 to 377 in 1913-83. In the same period, the share of marginal farmers (0.01-2.49 acres) in total land owned has increased from 17 per cent to 40 per cent and that of small farmers (0.01-4.99 acres) has doubled from 32 per cent (1913) to 64 per cent (1983). Their numbers also having gone up three-to four-fold, average holdings of marginal farmers have decreased from 1.13 acres (1913) to 0.95 acres (1983) and that of small farmers from 1.67 acres to 1.31 acres.

Instances of upward mobility from small holdings (of less than 5 acres) to larger holdings are difficult to find in Dusi. Two such we came across are interesting. NG (Naicker)

has accumulated 13 acres and two pumpsets in the last 15 years. He started life as a truck driver, used his savings and his wife's jewels to acquire his own lorry, and has ploughed the profits from lorry-hiring to buy land. On the other hand SM (also Naicker) who has had to depend on surpluses from agriculture alone has made much slower progress. It has taken him 30 years to increase his holding from 2 to 9 acres which he has been able to do by buying land in small bits from Brahmin landowners usually on extended payment terms.

Land Prices and Sales

Data from earlier surveys indicate that land prices in Dusi have remained high. In 1917, PK reported prices of wet land at Rs.1500 to 2500 per acre "depending on the fertility of the land, the accessibility from the village, and its proximity to the source of irrigation". During the post-depression period, prices had fallen to Rs.700 to Rs.1200 per acre in 1937 (AKV). In 1983, wet land was quoted at Rs.25,000 to Rs.30,000 per acre. High land prices were related by our informants to a variety of factors: the pressure of population on cultivable land, demand induced by surpluses with weavers, irrigation under a relatively dependable tank, and proximity to an urban area. Table 28 shows land prices in the three periods in terms of paddy prices. It is interesting that the land (acre) to paddy (tonne) ratio has tended in Dusi, as elsewhere, to remain within a fairly narrow band over several years.[2/] A net income in the range of Rs.2000 to Rs.3000 from an acre today will be equivalent to a return of 8 to 12 per cent on investment.

We were able to collect land sales data for a period of 16 years from 1967 to 1982 from the office of the Sub-Registrar of Assurances. Price data was clearly unreliable as land is registered only for a fraction of its true value in order to

evade stamp duty. Average registered prices in 1982 for wet land, for instance, was only Rs. 115 for a cent (one hundredth of one acre) while all the evidence gathered from enquiries converged around Rs. 250 to Rs. 300 for a cent. The extents sold may also be underestimates as unregistered transactions and de facto sales in the form of long-term mortgages would not get captured in the official registration records. However, it is possible to get some idea of the pattern of sales from this data which is summarised in Table 29. In this 16-year period, on an average there have been 26 transactions per annum involving about 13 acres or under 2 per cent of land under patta in the village. This proportion is not insignificant. Land is typically sold and purchased in small parcels, the average for the 417 transactions in 1967-82 being 0.49 acres per sale.

Table 30 shows the direction of sales in the period as between non-residents and residents. Out of 205.54 acres involved in registered sales during 1967-82, 101.33 acres or slightly less than 50 per cent has changed hands amongst residents. Inward sales from non-residents to residents have amounted to about 71 acres while out-ward sales vice-versa have been only about 18 acres; in other words non-resident ownership has tended to get diluted. In Dusi, this is associated with a steady stream of land sales from non-resident Brahmins to residents: 62.5 per cent of all sales from non-residents to residents in this period were cases of Brahmins in Madras or elsewhere selling off land to residents. In internal sales as well, land was being sold off by Brahmins to other communities although to a lesser extent of such sales viz., about 30 per cent.[3/] Many of the sales in both categories, were to Naicker weaving households in Nathakollai.

A correlation between the extent of sales and seasonal conditions suggests that demand rather than supply might be the stronger explanatory factor for the pattern. The volume

of sales, for instance, has dropped during the recent drought years (1980-82). On the other hand, sales have picked up at the beginning or at the end of a spell of good years (e.g. in 1971, 1975 and 1979). This phenomenon may be related to the fact that non-resident landowners with staying power (usually Brahmin) tend to dispose of land when prices are favourable and there is a revival of demand.[4/]

Land and other assets

The distribution of assets such as pumpsets, livestock and poultry, carts, ploughs and of consumer durables in the form of radios and cycles vis-a-vis size class of ownership holdings is set out in Table 31. In as much as the table has been compiled from the household census data which relates to land and assets held in the village it does not capture land or assets (especially pumpsets) owned elsewhere. In this sense, the relationship portrayed between land and other assets is not accurate. Nevertheless, the table can be used to obtain some idea of the relative skewness in the distribution of assets other than land vis-a-vis that in land owned in the village.

Table 32, derived from the previous table, shows the share of the landless, of small (including marginal) farmers (owning up to 4.99 acres) and of medium and large farmers in household numbers, land and in other assets. It will show that landless households who are 66.3 per cent of all households, own more than 50 per cent of the looms and around 50 per cent in poultry and in consumer durables. Their share in draught cattle, carts and ploughs is of the order of 25 per cent. In milch cattle it is somewhat higher at about 30 per cent. Small farmers who constitute about 30 per cent of resident households account for more than 60 per cent of resident land ownership. Their shares in the ownership of looms, poultry and consumer durables are around 40 to 45 per cent while it is around 60

per cent in draught and milch cattle, carts and ploughs. They also own about 48 per cent of pumpsets. Medium and large farmers, while being 3 per cent of resident households, own 37 per cent of land and 52 per cent of pumpsets. Their shares are much lower in carts and ploughs (about 16 per cent in each), draught and milch cattle (12 and 10 per cent respectively), radios and cycles (about 7 per cent in each), looms (5 per cent) and poultry (4 per cent). The significant support that weaving -- evidenced by the ownership of looms -- has provided to the landless and to small farmers is brought out in these data. Asset ownership in the sub-set of weaving households is discussed in greater detail in section VII.

Tenancy

More than 500 acres, or over 70 per cent, of cultivable land in Dusi was under tenancy in 1916. Of this, 410 acres or over 80 per cent was under Varam or sharecropping. Eight landowners, who were non-resident, let out about 100 acres of land on Kuthagai or fixed rents. Leases were concluded for a year at a time and were oral. The tenants did not "own land in the village". In Varam, the tenant only supplied his labour and the landlord supplied everything else viz., seeds, manure, ploughs, bullocks and the land revenue payment. The share of the tenant was 1/6th (i.e. 16.7 per cent) of the produce. The Kuthagai rentals amounted to 10 to 15 kalams (480 to 720 Madras Measures) per acre per crop equivalent to 960 to 1440 Madras Measures for two crops in a year.

In 1937, AKV reported 508 acres as being under tenancy. While this was about the same as the extent of tenancy in 1916, the area under Varam had decreased to 174 acres (or 34 per cent) and that under Kuthagai had gone up to 334 acres. Associated with this was the increase in the number of non-resident landowners to 107. The 135 tenants who cultivated

land either on Varam or Kuthagai were all landless. As in 1917, the tenant contributed only his labour and his share continued to be 1/6th of the output. Kuthagai rates per annum were in the range of 1040 to 1280 Madras Measures, roughly the same as in 1916. There was keen demand for tenancy.

By 1959 (AERC), the extent of land under tenancy had sharply declined to 203.38 acres and all of it except for three acres was under Varam. As a consequence of tenancy legislation, the share of the tenant in cases where he supplied the labour alone was fixed at 27.5 per cent although it does not seem to have been actually realised by tenants until about a decade later. If all expenses were borne by the tenant, his Varam share came to 45 per cent of gross output.

Land under tenancy in 1983 amounts to 160.81 acres or 22.6 per cent of land under patta. Tenancy, while still sizable, is significantly less than in 1937. This trend is related in part to the divestiture of land from non-cultivating Brahmin landlords to self-cultivating resident owners; in part it reflects the resumption of tenancies in the 1950s consequent on tenancy legislation. About 80 per cent of land leased out is by non-residents. 52.5 per cent of land owned by non-residents is under tenancy while only 7 per cent of land owned by residents has been leased out (vide Table 33) The average extent of land leased-in is 1.34 acres which is about one-third of the corresponding figure of 3.76 acres in 1937. Of 120 tenants in the village, 57 are landless. Legislation requires the registration of tenants but we found that the concerned register was grossly incomplete. Tenancies continue, as in 1916, to be oral and are concluded for a year at a time. There are however several cases of long-standing tenancy relationships between particular tenants and landlords.

These are generally instances where an old-time attached worker had been given some land on lease or where the tenancy acted to attach him to the landlord as a farm and/or domestic servant.

Varam appears to be the exclusive form of tenancy as we did not come across any case of Kuthagai. While non-resident lessors in 1937 preferred Kuthagai, the situation has now changed. Varam is preferred as involving a less formal arrangement in which the landlord can exercise control over the sharing of the produce on the harvest floor. In practice, non-resident landlords of Dusi do not find much of a problem in concluding or supervising Varam arrangements because many of them are in surrounding villages or in Kancheepuram. Others, mostly Brahmins, living in Madras are able to get their relatives to help in this regard. Another reason for resort to Varam is that under the fluctuating seasonal conditions to which irrigation in Dusi is subject, the risks as well as the returns from the new technology are high; this makes both landlords and tenants prefer crop-sharing arrangements to fixed rents.

There are three types of Varam at present. In Al-Varam (literally labour-tenancy), the tenant or Varamdar agrees to supply the entire labour requirements for different operations, while the landlord takes care of all other costs. Usually, the tenant uses his family labour supplementing it with hired labour as required. This is the most common type of tenancy that has subsisted in Dusi. As far as the tenant is concerned, it has features of a labour contract paid for in kind. It also has features of tenancy since although decisions on the application of inputs and other production decisions might be taken by the landlord, the tenant shares the risk, his share being relate to gross output. From the landlord's point of view, it has features of direct cultivation but also certain other advantages. Al-Varam provides a system of attachment which relieves

landlords of problems in mobilising adequate labour at the right time; and in the Dusi situation, mobilising labour becomes difficult because a number of agricultural labourers come from outside the village and unskilled labourers in Dusi have an outlet for alternative casual employment in Kancheepuram. It also suits the Varamdar because he earns a little more under Al-Varam than he might as an individual worker; in fact, older agricultural workers who have had a continuing relationship with particular landowners graduate themselves to Al-Varam tenancy. Al-Varam however depresses wages to those working for the tenant. It also makes unionisation difficult, a feature which is not unappreciated by the landowners.

The second type of Varam where the tenant contributes also inputs, ploughs and draught animals is less common. Until the late 1970s the shares of the tenant had remained at 27.5 per cent of 45 per cent according as he supplied only the labour or the inputs as well. About 5 or 6 years ago, there was an agitation in which the tenants went on a brief strike in demand of improved shares. This was settled with a marginal improvement to 30 per cent or 50 per cent respectively in the two categories. In the third case, the tenant supplies labour and the inputs as above but the landlord pays for electricity for the pumpset. In this type of Varam, the tenants' share in gross output is reduced to 35 per cent.

The relative shares for landlord and tenant in the first two types of Varam imply a labour cost of 30 per cent and an input cost of 20 per cent in gross output. This is equivalent by implication to a labour-to-value added ratio of 37.5 per cent which is broadly consistent with corresponding ratios of 0.35 to 0.40 we found in the sample survey of cultivators. A 50/50 tenant would appear to be left with little surplus

vis-a-vis an Al-Varamdar. Under assured well-irrigation with pumpsets, landlords normally expect a doubling of gross output; in which case, a 35/65 tenant will be able to get only 20 per cent of the incremental output arising from the use of the pumpset.

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1/ M.R.Haswell (1961) came to the erroneous conclusion that Dusi in 1916-17 was "an entirely Brahmin landlord village". She probably got that impression from a statement in PK's survey that the non-Brahmin tenants of the Brahmin landlords "own no land in the village". An examination of the original Settlement Register (1913) of the village shows that other castes and communities besides Brahmins owned land in Dusi.

2/ This was also the case in two other "Slater villages" viz., Iruvelpattu and Palakurichi. See also M.R.Haswell (1961) for a discussion of this relationship based on her enquiries in 1961.

3/ The case of RNK (Brahmin, age 83) who has settled in Dusi after retirement from Government service is illustrative. His grandfather owned 40 acres. His father inherited 20 acres. RNK held on to 10 acres until he returned to the village on retirement but has since sold 8 acres out of it.

4/ The following findings of John Harriss in his sample study of 47 households in Dusi also corroborate our analysis of land sales data in 1967-82: "Of the 67.41 acres purchased by these households since inheritance at least one third were obtained from Brahmin landowners (both in Dusi and from outside). Overall, rather more purchases were from outside landowners (55 per cent) than from landowners inside Dusi ... The most important single source of income for the purchase of these lands .. was weaving (accounting for one third of all purchases).. It seems that the availability of incomes from weaving has probably played a part in bringing about the shift in the control of land from the Brahmin landlords of Dusi to the Naickers who were formerly their tenants... The frequency of distress sales of land in Dusi appears to be rather low..."

Table 22: Landholding pattern 1983

(In acres)

	Households	Dry	Wet	Total
1. Resident Individual	214	146.49	322.86	469.35
2. Non-resident Individual	163	56.06	187.70	243.76
3. Total Individual	377	202.55	510.56	713.11
4. Temples		0.92	13.77	14.69
5. Housesites		35.29	0.11	35.40
Total	377	238.76	524.44	763.20

Table 23: Caste-wise Land ownership 1913

	Households	Land owned (in acres)	Per cent
1. Brahmins	71	438.17	63.8
2. Mudaliars	24	89.45	13.0
3. Muslims	2	33.07	4.8
4. Naickers	9	27.08	3.9
5. Others (caste not identified)	68	97.31	14.2
6. Temples		2.16	0.3
	174	687.24	100.0

Table 24: Caste-wise resident land ownership 1983

	Households	Land owned in village (in acres)	Per cent
1. Naickers	170	331.54	70.64
2. Brahmins	9	81.16	17.29
3. Mudaliars	10	18.44	3.93
4. Muslims	5	7.72	1.64
5. Chettiars	3	6.88	1.47
6. Valluvars	4	6.69	1.43
7. Odayar	1	6.50	1.38
8. Naidu	4	5.88	1.25
9. Pandaram	2	1.87	0.40
10. Vannars	2	0.98	0.21
11. Asari	2	0.92	0.20
12. Karunigar	2	0.77	0.16
	214	469.35	100.00

Table 25: Landownership in Dusi among resident weaving and Non-weaving Households 1983

	HHs	Extent of land (in acres)	Average per HH	Gini coefficient
Weaving Households	102	178.12	1.75	0.42
Non-weaving Households	112	291.23	2.60	0.51
All	214	469.35	2.19	0.51

Table 26: La

Table 26: Land-owning and Landless Households Castewise 1983

	Total HHs	HHs owning land in village	HHs owning land outside	Landless HHs	Landless HHs to total HHs (per cent)
1. Naickers	442	170	41	231	52.3
2. Other caste Hindus-I 1/	106	32	7	67	63.2
3. Other caste Hindus-II 2/	44	7	1	36	81.8
4. Harijans	2	-	-	2	100.0
5. Irulars	5	-	-	5	100.0
6. Muslims	34	5	-	29	85.3
7. Christians	2	-	-	2	100.0
	635	214	49	372	58.6

1/ Includes Chettiar, Mudaliars, Naidus, Brahmins, Valluvars, Pandaram, Nair, Nadar, Pillai and Reddiar.

2/ Includes Asari, Pandithar, Vannar, Odayar, Yadhavar, Gramani, Jogi, Karunigar and Parvatharajakulam.

Table 27: Distribution of land ownership 1913 and 1983

Size class (in acres)	1913		1983		1913		1983	
	HHs	Extent	HHs	Extent	HHs cumulative per cent	Extent cumulative per cent	HHs cumulative per cent	Extent cumulative per cent
0.01 - 0.99	48	25.91	179	95.92	27.59	3.78	47.48	13.45
1.00 - 2.49	54	89.67	121	189.98	58.62	16.87	79.57	40.09
2.50 - 4.99	31	105.95	50	171.54	76.44	32.33	92.83	64.14
5.00 - 7.49	17	104.70	12	72.69	86.23	47.61	96.01	74.33
7.50 - 9.99	9	79.44	7	58.36	91.40	59.21	97.87	82.51
10.00 - 14.99	9	105.85	5	60.19	96.57	74.66	99.20	90.95
15.00 - 19.99	3	56.51	2	33.57	98.29	82.91	99.73	95.66
20.00 - 24.99	1	21.00	-	-	98.86	85.97	99.73	95.66
25.00 - 29.99	1	25.94	-	-	99.43	89.76	99.73	95.66
30.00 - 34.99	-	-	1	30.86	99.43	89.76	100.00	100.00
70.00 - 74.99	1	70.11	-	-	100.00	100.00		
	174	685.08	377	713.11				

Table 28: Land Prices in Dusi (wet land)

	Price per acre (Rs.)	In tonnes of paddy 1/
1916	1500 - 2500	15.6 - 26.0
1937	700 - 1200	11.3 - 19.3
1983	25,000 - 30,000	13.1 - 15.7

1/ Paddy prices assumed per MM (1.13 kg) are average prices of Rs.0.085 in 1916, Rs.0.055 in 1937 and Rs.1.69 in 1983.

Table 29: Land sales in Dusi 1967-82

	No of sales	Extent (in acres)
1967	23	13.26
1968	10	5.37
1969	10	5.36
1970	22	9.73
1971	28	14.71
1972	20	12.61
1973	34	14.81
1974	32	14.47
1975	33	21.41
1976	24	12.60
1977	26	14.73
1978	47	19.63
1979	51	24.51
1980	30	10.38
1981	19	8.90
1982	8	3.96
	417	205.54

Table 30: Direction of land sales in Dusi 1967-82

From	To	No	Extent (in acres)	Of which sales by Brahmins
Non-residents	Residents	142	70.73	44.20
Non-residents	Non-Residents	32	15.64	3.19
Residents	Non-Residents	20	17.84	2.39
Residents	Residents	223	101.33	30.66
		417	205.54	80.44

Table 31: Ownership of land and other assets by Resident Households 1983

	HHs	Extent of land owned (acres)	Looms	Pumpsets	Draught Cattle	Milch Cattle	Poultry	Carts	Ploughs	Radios	Cycles
Landless	421	-	138	-	62	113	149	8	113	98	122
0.01-0.99	81	40.50	43	-	33	62	27	5	63	26	32
1.00-2.49	76	127.34	39	4	70	88	89	8	119	32	38
2.50-4.99	38	127.39	21	6	48	73	22	10	78	23	32
5.00-7.49	9	55.02	11	4	10	18	11	3	30	8	10
7.50-9.99	5	41.37	2	3	8	8	1	1	12	2	3
10.00-14.99	4	46.87	-	2	8	6	-	-	20	3	2
30.00-34.99	1	30.86	-	2	4	5	-	2	8	1	2
	635	469.35	254	21	243	373	299	37	443	193	241

Table 32: Relative shares in HH numbers, land and other assets 1983

(per cent)

	HH Nos	Land	Looms	Pump - sets	Draught cattle	Milch cattle	Poultry	Carts	Ploughs	Radios	Cycles
Landless	66.3	-	54.3	-	25.5	30.3	49.8	21.6	25.5	50.8	50.6
Small farmers	30.7	62.9	40.6	47.6	62.1	59.8	46.2	62.2	58.7	42.0	42.3
Medium and Large farmers	3.0	37.1	5.1	52.4	12.4	9.9	4.0	16.2	15.8	7.2	7.1

Table 33: Land leased-out in Dusi 1983

(Acres)

	Residents	Non-Residents	Total
Owned	469.35	243.76	713.11
Leased out	32.79	128.02	160.81

VI : Labour

The broad occupational structure in Dusi has been described in section II. To recapitulate, 41.7 per cent of the work force are in agriculture, 21.8 per cent in non-agricultural occupations other than weaving, and the balance of 36.5 per cent in weaving either as supervisors or as wage workers. In this section, we shall be mainly concerned with agricultural labour and with workers in non-agricultural occupations other than weaving. We shall also touch upon aspects of debt, poverty and consumption. The section that follows gives a detailed picture of the weavers in Dusi.

Agricultural labour

According to our survey, 273 workers (53 males and 220 females) can be classified as agricultural labourers constituting 41 per cent of the agricultural work force (Table 34). In addition, Dusi gets a number of its agricultural workers from outside, mainly the Harijan colonies of Kuranganilmuttam and Pallavaram. 78 per cent of agricultural labourers are from households that do not own any land. The very large proportion of females among agricultural labourers (slightly over 80 per cent) is because of weaving which has drawn off a number of males who might have otherwise remained as wage workers in agriculture.[1/] It is the weaving households that also supply the bulk (nearly two-thirds) of agricultural labour.

In 1916, PK reported 150 padial households equivalent to 300 agricultural labourers (male and female) if one can assume two workers in each such household. The padials were Al-Varam tenants mostly of Brahmin landlords. The 1959 (AERC) survey reported a total number of 314 (152 males and 162 females) for agricultural labour exclusive of Al-Varam tenants.

If Al-Varam tenants and their family labour are also added to our figure of 273, the total count of agricultural labourers may come to 400 or more compared to PK's figure of 300. These figures also do not take into account changes in the numbers of agricultural labourers residing in neighbouring villages and coming for farm work in Dusi. The emergence of weaving thus does not seem to have resulted in any reduction in the numbers of agricultural labourers; it has produced however a shift from male to female workers amongst them since 1959

PK (1916) uses the word padial, as equivalent to a "ryot cultivating leased land". Bondage was through debt as the landlords "have lent money to the ryots, who in return promise to be their tenants under the usual conditions, till they are in a position to redeem themselves from the bondage" The padial-tenants, however, "are not bound to perform any service to the creditors except that they have to pay the interest for the money borrowed at a rate ranging from 10 or 12 per cent either in kind of cash". The padial system in Dusi thus seems to have represented one of attached tenants rather than a repressive hold on bonded labour as was the case in Thanjavur. The emigration of Brahmin landlords must have led to the progressive dissolution of the system and by 1937, AKV was able to record categorically that "there are no padiyals here". We did not find any vestiges of the system except that about a dozen persons who were old-time domestic servants of landlords called themselves, and were referred to, as padials.

PK does not give information on wages for different agricultural operations but notes that the general wage for unskilled work was 6 annas per day for males and 2½ annas for females. At the then prevailing proces, these would be equivalent to 5 kg of paddy and 2.1 kg of paddy respectively. For 1937 and 1957-58 we have operation-wise wage data.

M.R. Haswell has also provided some data for 1961. Table 35 gives the wage levels in 1983.

Table 36 compares wage levels in terms of paddy equivalents, costed at post harvest prices, at the time of the different surveys since 1937 so as to get an idea of changes in real terms. Comparing 1983 with 1937, we notice a decline in the case of wages for ploughing (without cattle) and weeding and a marginal improvement in regard to wages for plucking of seedlings and transplanting. In these operations, real wages have dipped in the late 1950s and early 1960s. The rate of 6 annas for (male) cooly work in 1916 was equivalent to 5 kg of paddy at the then prevailing prices. The current rate of Rs.7 plus a meal will work out to 5.2 kg or only slightly more. Harvest wages on the other hand have steadily increased and have doubled in real terms between 1937 and 1983. The increase in Al-Varam shares in gross output from 16.7 per cent to 30 per cent is another indication of improvement in the share to labour and this seems to have been passed on to hired workers mostly at the time of harvest and rethreshing.

In making these comparisons, we have converted cash into paddy at post-harvest prices. It must be remembered however that in Dusi wages in kind, as Table 35 will show, are paid only for harvest and re-threshing. Being close to Kancheepuram, a high proportion of output is marketed (the AERC survey estimated it at 42 per cent). Agricultural labourers have to buy grain in the shops in the lean months at prices which are much higher than those obtaining immediately after harvest. In 1982-83, for instance, post-harvest prices of paddy were in the range of Rs.1.47 to Rs.1.91 per MM (or an average of Rs.1.69) while lean season prices soared to Rs.2.65 per MM.

The duration of annual employment for agricultural labourers in Dusi varies widely from year to year depending on fluctuations in tank irrigation. Estimates we could

obtain converged around 60 days each for men and women in each of the main Samba and Navarai seasons. The pattern of employment on different operations and estimated earnings at current wage levels per season is given in Table 37. For two workers in a family total earnings came to Rs.741 in a season. For two or two and a half seasons in a normal year, annual family earnings of agricultural labour households can be estimated in the range of Rs.1500 to Rs.1850. In a drought year, agricultural labourers could expect wage incomes only from Puzhuthikal and Navarai and annual earnings for two workers in the family could drop to Rs.1000 to 1200. The main source of supplemental employment available in construction work in Kancheepuram for 7 to 15 days in a month. Daily wages available for such work ranged between Rs.8 and 10 out of which a rupee had to be spent on transport and two rupees paid as 'commission' to the maistry or supervisor who recruits casual construction labour. About a hundred days of casual employment of this kind for men could add Rs.700 to the family income in a year.

Non-agricultural occupations

The growth in weaving, and in other non-agricultural avenues for employment, in Dusi since the earlier surveys is striking. The 1916 (PK) survey pointed out that "there is no industry at all in the village excepting agriculture and the minor crafts of the carpenter and the other smiths. There are no weavers in the place". In 1937, AKV noted that the weaving industry was "steadily developing" having grown from 2 looms in 1924 to 10 in 1935. Otherwise, he found only a soda water "factory", a new mill for milling rice and decorticating groundnut and 8 petty shops in the village. As pointed out in section VII, weaving began to emerge as a major alternative occupation from the early 1960s. Table 38 will show that since 1959 there has been a widespread growth in other non-agricultural occupations as well.

The development has occurred in a variety of ways. Firstly, the salaried class has expanded with new opportunities being provided by the balwadi, the noon-meal scheme, cooperative society, health staff etc. Secondly, the number of those engaged in the traditional non-agricultural occupations has seen some expansion. Carpenters have increased in number from 2 to 5 as weaving has provided avenues for them in the manufacture and repair of looms. Blacksmiths have gone up in number from 2 to 9 with two of them having entered the profession from outside the traditional Asari caste. Barbers have doubled from 4 to 8 with two of them working in a "haircutting saloon". Goldsmiths and potters have however decreased in number while the numbers of washermen has remained the same. Thirdly, we notice a proliferation in "non-traditional" crafts and repair services. Dusi now hosts 16 tailors while there were none at all in 1959. Repair service-men include machanics, wiremen, radio repairers and motor rewinders. Fourthly, there has been an increase in the number and type of shops and in vending activities: cycle hiring shops, pawn shops, mutton shops, the toddy and arrack shops and a loud-speaker hiring agency (sound service) are developments of the last two decades. Vending extends to flowers, milk, rice, dried fish, eggs, oil, oil cake, herbal medicines and fruits. Fifthly, household occupations have also expanded: beedi from 2 households in 1959 to 24 now with other household occupations including stitching of leaves (used as eating-plates), basket and mat weaving. Dusi has been able to benefit to some extent from its locational advantage as well: 37 persons, or about 11 per cent of the non-agricultural (non-weaving) workforce, are out-workers living in Dusi but working elsewhere, mainly in Kancheepuram (19).

Table 39 on the caste composition of the non-agricultural workforce brings out the correspondence between caste and occupations. The "forward" castes, followed by Naickers, have

a large share in salaried employment, newer occupations such as those connected with repair and maintenance and in trade where the Chettiars are prominent. Muslims are concentrated in tailoring and in Beedi-making; they also run the mutton shops. The castes engaged in traditional crafts and services have not managed to diversify away from them. The Irulars are the most depressed and depend entirely on such occupations as collecting firewood, catching rats and stitching leaves for their livelihood.

Debt

We could not possibly undertake a complete survey of indebtedness. Ninety or about 30 per cent among non-weaving households reported debts. These exclude short-term production loans and small consumption loans taken from friends and relatives for short periods. Total indebtedness for these 90 households came to Rs.3,25,350. Indebtedness among weaving households, based on a sample survey of 10 per cent of such households, is discussed in Chapter VII. The average borrowing of Rs.2638 per weaving households is smaller than the Rs.3615 we encountered among non-weaving households. The distribution of borrowing for non-weaving households among various sources of credit is given in Table 40. Institutional sources consist of the cooperative society in Dusi which lends for milch cattle and the Indian Bank at Mamandur which lends mainly on the pledge of jewels. Together they have met 23.3 per cent of credit. The balance has come from borrowing on pro-notes from private persons in Dusi or Kancheepuram, on pledge of jewels and utensils with pawn-brokers, by the usufructuary mortgage of land, and from chit funds of which there are 5 or 6 in Dusi. The large loans, of the order of Rs.10,000 to 15,000 were borrowed for marriages, house construction and land purchase. Rates of interest on Cooperative and Bank credit are in the range of 10 to 12 per cent; from other

sources, it goes up to Rs.3 to 5 per 100 per month (i.e. 36 to 60 per cent per annum) depending on the borrower and the nature and adequacy of the security. About half a dozen persons in Dusi lend money as a side business. Apart from traders (mostly among the Chettiars), a number of salaried persons have turned to money-lending as a supplementary source. The landowners are, as a rule, were not involved in money-lending except for small consumption loans to domestic servants or to Al-Varam tenants.2/

The banking habit has caught on in Dusi. There were as many as 344 savings bank current accounts in the Dusi Post Office in March 1983 operated by its residents with a total balance of Rs.58,000. Residents of Dusi also bank at Mamandur and at Kancheepuram. It was not possible for us to estimate savings in terms of time deposits. In the Post Office, they were very few in number.

Poverty

The minimum subsistence norm of Rs.15, in terms of monthly per capita consumption, for rural India in 1960-61 works out to Rs.77.25 in 1983 prices using the Consumer Price Index for Agricultural Labour (CPIAL) for Tamilnadu as the inflator. For a family of five, this is equivalent to an annual consumption level of Rs.4635 or a monthly level of Rs.375 to 400. We have used this norm as a reference to get some idea of the incidence of "absolute poverty".3/

We have already seen that wage incomes of landless agricultural labour households, including supplementary earnings from casual construction work, are of the order of Rs.2200 to 2500 in a normal year. Such households are clearly under the poverty line. Incomes of marginal farmers and tenants vary in the range of Rs.2000 to 3000 per acre depending on

seasonal conditions; accordingly, those owning about 1.5 to 2.5 acres and almost all tenants would fall below the line. Monthly household incomes of those engaged in petty trade and services, vending, minor household occupations such as mat weaving or stitching leaves and in traditional occupations -- carpenters, blacksmiths, barbers, washermen and potter -- are in the range of Rs.250 to 350. The earnings from beedi manufacture come to Rs.340 per month on an average for two workers in a family.

In Table 41, we have classified non-weaving households in different occupational groups as falling above or below the poverty line. Based as it is on broad judgments, the method is rough and ready but fine-tuning may not alter the proportion significantly. According to these estimates, about 63 to 72 per cent of non-weaving households can be categorised as the 'absolute poor' depending on seasonal conditions. Poverty among non-weaving households is discussed in section VII based on a sample survey of household incomes in 1982-83. In this drought year, nearly three-fourths of weaving households were below the line.

Drink is connected with debt and poverty. Dusi has an arrack shop and a toddy shop. The annual rental for the arrack shop is Rs.1,50,000. Sales are around 50 bottles a day equivalent to a daily sale (in smalls) of arrack worth Rs.600. It was normal to see about 100 or more persons coming to the arrack shop which is kept open from morning to night. The truth of the legally prescribed slogan "Drink ruins the family", which the shop displayed in small letters, was only too apparent amongst many poor families in Dusi.

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1/ In Cheyyar taluk as a whole, women constituted 62 per cent of all agricultural labourers in 1981.

2/ John Harris in his sample of 47 households (which included some weaving households) obtained broadly similar estimates. Average indebtedness was Rs.5,328 per household. Institutional sources contributed 22.9 per cent. Other sources included master weavers. The most important purpose in terms of value, and one of common occurrence, was for meeting marriage costs.

3/ This estimate can be broadly corroborated in another way. Enquiries among a number of poor households in the village indicated that 550 grams of rice was considered as the norm for daily consumption for an adult. At an average price of Rs.2.85 per kg (of rice II sort) in 1983, cereal consumption for an adult unit would come to Rs.1.57 per day. On the basis of NSS estimates, we can assume non-cereal consumption to come to an equal figure. For a family of five with 4 adult units, monthly consumption will then be Rs.377 (1.57x2x4x30) or Rs.75.4 per capita per month.

Table 34: Agricultural Workforce 1983

	Male	Female	Total
Cultivators	204	183	387
Agricultural labour	53	220	273
	257	403	660

Table 35 : Agricultural Wages 1983

Operation	Wage per day
1. Ploughing (without cattle)	Rs.5
2. Ploughing (with cattle)	Rs.10
3. Plucking seedlings	Rs.7 plus one meal
4. Bunding	Rs.10 per acre
5. Transplanting	Rs.4 or 3.5 plus one meal
6. Weeding	Rs.4 or Rs.3 to 3.5 plus one meal
7. Manuring	Rs.5 plus one meal
8. General : Male	Rs.7 plus one meal
Female	Rs.3.5 or 4 plus one meal
9. Harvesting (Males and Females)	One marakkal plus one meal
10. Rethreshing (Males and Females	One marakkal plus one meal

Table 36: Comparative Wage levels 1937-83

(in kg of paddy)

	1937	1957-58	1961	1983
1. Ploughing (without cattle)	3.8	2.8	3.2	3.3
2. Plucking seedlings:				
Male	5.0	N.A.	3.2	5.2
3. Weeding: Female	3.2	1.7	N.A	2.7
4. Transplanting:				
Female	2.5	1.3	1.3	2.7
5. Harvest	2.5	3.4	4.4(M) 3.1(F)	5.0

Note: Prices used are post-harvest average prices per MM (1.13 kg) of Rs.0.055 in 1937, Rs.0.50 in 1959 and Rs.1.69 in 1983.

Table 37: Earnings per season 1983

Males	No. of days	Earnings (Rs.)
Ploughing	10	50
Plucking of seedlings	15	116
Bunding	10	15
Harvest and rethreshing	25	188
	60	404
Females		
Transplanting	20	85
Weeding and manuring	15	64
Harvest and rethreshing	25	188
	60	377

Table 38: Non-agricultural (non-weaving)workers 1959 and 1983

	1959	1983
Salaried	43	49
Traditional crafts and services	17	28
Repair and maintenance	5	17
Tailors	-	16
Beedi	2	24
Trade	24	84
Other	30	92
	116	310
Cattle tending	NA	35
		345

Table 39: Non-agricultural (non-weaving) workers caste-wise 1983

	Salaried	Repair and maintenance	Tailors	Beedi	Traditional crafts and services	Cattle tending	Trade	Other	Ttl
Naickers	15	9	2	2	-	31	24	36	119
Other caste Hindus-I 1/	25	4	4	-	2	-	51	27	113
Other caste Hindus-II 2/	4	3	-	-	26	4	2	3	42
Muslims	1	1	10	22	-	-	7	14	55
Harijans	2	-	-	-	-	-	-	-	2
Irulars	-	-	-	-	-	-	-	11	11
Christians	2	-	-	-	-	-	-	1	3
	49	17	16	24	28	35	84	92	345

1/ Includes Chettiars, Mudaliars, Naidus, Brahmins, Valluvars, Pandaram, Nair, Nadar, Pillai and Reddiar.

2/ Includes Asari, Pandithar, Vannar, Odayar, Yadhavar, Gramani, Jogi, Karunigar and Parvatharajakulam.

Table 40: Sources of borrowing for non-weaving households 1983

	Amount (Rs.)	Per cent
1. Indian Bank, Mamandur	58,700	18.0
2. Dusi Cooperative Society	17,200	5.3
3. Pro-note loans	89,800	27.6
4. Other	1,59,650	49.1
	3,25,350	100.0

Table 41: Estimate of poverty for non-weaving households

1983

Household depending on	Total	Below poverty line	Above poverty line
1. Cultivation	111	55-81 1/	30-56
2. Agricultural labour (landless)	36	36	--
3. Cultivation and agricultural or non-agricultural labour; and agricultural and non-agricultural labour	24	12	12
4. Petty trade and services	57	57	--
5. Traditional crafts and services	19	19	--
6. Old persons	3	3	--
7. Beedi manufacture	9	9	--
8. Shop ownership	10	-	10
9. Salaried	35	-	35
10. Irulars	5	5	--
	309	196-222	87-113

1/ Estimated from land distribution data vide Table 31.

VII : The Weavers of Dusi

There are today in Dusi a total of 259 handlooms, of which 241 are silk handlooms and the rest cotton. These looms are owned by 177 households, and provide employment to 460 persons, of whom 387 are residents of the village, the remaining 73 coming daily from outlying villages. Another 191 persons from Dusi go daily to work on looms in neighbouring villages, mostly working on silk, so that a total of 578 persons from within the village are involved in the production of handloom cloth. These 578 workers come from 326 households, slightly over half the total households in the village.

Judging from the earlier reports on Dusi, it is apparent that the growth to such a significant level of the handloom weaving industry and of the silk handloom weaving industry in particular has been a relatively recent phenomenon. In 1916 there were no handlooms in the village, although it was noted that the industry was widespread in the area.[1/] The 1937 study noted the existence of a handful of looms employing no more than 10 persons, all of these engaged in cotton weaving.[2/] By 1959, the situation had begun to change, and the AERC survey noted with some satisfaction the growth of the silk weaving industry in Dusi as a viable alternative to dependence on agriculture. According to the survey, there were 45 looms in the village in 1959; it is also clear from the account that some, if not all, of these looms were silk handlooms.[3/] In 1961, there were 48 silk looms in Dusi.[4/]

Given the dramatic difference between the situation as recent as 1961 and that prevailing now, we have reconstructed the highlights of the phases of development of the industry in the village through interviews with some of the older weavers at Dusi. It was possible to build up only a rough

and approximate picture of the main trends: respondents were not always clear about dates, and tended to remember with greater clarity the picture in their own hamlet rather than in the revenue village as a whole.

The earliest looms in the village were probably set up around the mid-1920s. A few years prior to this, possibly at about the start of the decade, a period of very severe drought had led to a small group of about 20 young men and boys going to the neighbouring village of Ayyangarkulam to learn weaving and to work on the looms there. Muthappa Naicker, the oldest living weaver in Dusi today, who was in this first batch, recalls that there was no way even for koozhu (gruel) in the house at the time. Although boys were sent to Ayyangarkulam to learn the trade in the immediately following years, the number dwindled, and was probably insignificant for several years. From among those who went in the first batch to Ayyangarkulam, few returned -- as Muthappa Naicker did in the 1940s -- to set up looms in the village; most worked as wage workers outside the village. Apart from the handful of looms set up in the 1930s, we gathered that it was only towards the middle 1930s that three persons, contemporaries of Muthappa Naicker, set up cotton looms, eventually moving into silk weaving on looms that are today being operated by their sons' families; this conversion, judging from the published accounts, must have taken place after 1935.

Yarn shortages during the period of World War II led to weavers making the first experiments with yarn other than cotton: an attempt was made to try weaving rayons (narpattu) but the experiment did not last long, probably less than a year. Some income was obtained during the period by weaving narrow fabric for military use on the looms at Ayyangarkulam and Abdullapuram.

The first silk looms in the village were set up in the middle and late 1940s; the phenomenon was associated, by more than one respondent, with the raising of the tricolour at Kancheepuram. There were, by this time, several looms in the village manufacturing lungis, but accounts of numbers were too much in conflict to be reliable. The number of silk handlooms probably grew positively but slowly in the first half of the 1950s, but it was reported by all respondents that the greatest increase in the number of juveniles going to Abdullapuram and Ayyangarkulam took place toward the end of the decade, when there were three successive drought years. Records for the Dusi-Mamandur tank show that the three years ending 1959 were precisely such years, and it is likely that there was a substantial increase in the numbers of households seeking to augment their income by making an entry into the silk industry in that year. This was, of course, over and above the small growth that must already have been taking place.

From what our respondents had to say, it appears that the early 1960s was the watershed period: not only did the number of silk looms steadily increase since then, but weavers working cotton looms began to shift over to silk, the number of cotton looms began to decline and dwindle, with only a few left today.

Entry into the handloom industry by these households -- none of which belongs to any of the traditional weaving castes, but are mostly VanniaNaickers -- has been through the mechanism of sending out a child, often below the age of 10, to spend several years working as an assistant on looms located in Ayyangarkulam and Abdullapuram, about a half hour's walk from Dusi, or occasionally to Kancheepuram. Such assistants, after a period of training (when they are not paid a wage), are put on a small wage for a period of

a few years, when they graduate to full-fledged weaving. Following some experience, the pattern seems to have been -- at least since the late 1950s -- for the person, by now in his teens, to return to Dusi and set up his own loom if he and his family had access to the resources to do so, or to continue to remain a wage weaver.

This process of entry into the silk weaving industry on the part of households never before associated with the industry is something of an ongoing phenomenon: today there are several households where the main economic activity of the members is one or the other of a non-weaving occupation, where often no member of the family has ever been a weaver, but where there are children, both male and female, who work on looms as assistants, either within Dusi or outside it. There is also a significant number of households which do not possess looms, and where a significant part of the income is obtained by weavers working for a wage on looms belonging to others.

The handloom weavers of Dusi are thus not a homogenous lot, and we have concentrated, in our study, on the differences between the different types of workers and households. From the households survey conducted in the first months of the field work, the households were divided into three types:

<u>Group A</u> : households where there is at least one loom being owned and operated by a member of the household;

<u>Group B</u> : households where there are no active looms, but at least one member works as a weaver for a wage;

<u>Group C</u> : households where there are no owned looms and where there are no wage worker weavers, but where there are assistants working at looms elsewhere for a wage.

Based on the above categorisation of weaving households, the main issues taken up in the present section are the following:

- the socio-economic conditions of the weaving households of Dusi, with particular reference to the difference in incomes, assets, standards of living, and occupations of the different types of households;
- the relationships between the different groups of participants in the industry, including among these the master weavers who control the industry from Kancheepuram;
- the prevalence of child labour in the industry and the conditions of its employment.

In this section, we first take up the structure of the industry at Dusi. This is followed by an account of the weaving households, and then of the weaving workforce, including child labour. We then deal with the assets and the incomes of these households. The section closes with certain broad conclusions drawn on the basis of the material presented.

Structure of the Industry

The Kancheepuram silk saree is a high value added item whose main demand is within the country, and which is used largely for participation in rituals and functions, both religious and social. A typical Kancheepuram saree is made of doubled silk yarn in the weft and is adorned by gold lace (zari). The silk contained in the saree normally weighs 500 gms. and the lace adds to this, so that an average silk sarees weighs around 600 to 700 gms. The chief characteristics of the Kancheepuram silk saree -- differentiating it from the

sarees woven in Arni, for instance -- are its solid border and mundhani.[5] These require the use of throw shuttles, so that the Kancheepuram silk saree cannot be produced on a powerloom. The nature of the design itself is such that it takes time to weave one warp, which is of three saree-lengths: the use of throw shuttles slows down the loom, and this is further slowed down by the need to change the warp at the end of each saree length in order to weave in the mundhani which is a separate warp.[6] Most of the weavers covered by the sample survey reported annual output of between 8 to 10 warps over the year, although higher outputs are possible: in the case of old Muthappa Naicker's loom, which he operates almost ceaselessly, rarely going out of his house, and where someone else from the family operates the loom on the few occasions when he is unable to do the work, annual output has been 18 warps in each of the last three years. This is something of a record, and no other weaver in Dusi even thinks of matching it. Quite a few weavers have produced only 4 to 5 warps over the year: work in their case has been disrupted by a variety of factors such as illness, non-availability of assistants, quarrels with the master-weaver, and so on.

There are no weavers cooperatives in Dusi, and all the silk weavers operate under masterweavers in Kancheepuram or Abdullapuram. The masterweaver purchases yarn, has it warped and dyed to a prepared design, and gives the warp to the weaver. The yarn is purchased largely from Bangalore and Chitlagada in Kolar district of Karnataka, and is of two varieties, Bangalore and China silk; the latter is smoother in texture with less knots, and has become popular in recent years. Zari, supplied entirely from manufacturers in Surat,[7] is also purchased by the masterweaver and given to the weaver. Along with the yarn and the zari, the masterweaver also supplies the adai, an apparatus (comprising a set of

knotted strings) mounted on the loom to produce the design specified.

The weaver who takes the yarn from the masterweaver possesses his own loom. He may do the weaving either himself or may leave it to a member of his family; alternatively, he may employ a wage worker to do the task. The wage worker receives a part of the piece wage paid by the masterweaver when the final product is returned to him. The share paid to the wage weaver varies, standing at 75 per cent in the villages of Chengalpattu between Kancheepuram and Dusi, and at 50 per cent in Dusi, Ayyangarkulam, and Abdullapuram. The masterweaver's payment is on fixed terms, with deductions being made for weight losses between the yarn and zari supplied and the saree returned to him, and also for advances taken by the weaver.[8/]

Weavers work under the same masterweaver unless circumstances demand a change. At the start of the relationship, the masterweaver usually requires a surety from a third party for the value of the yarn supplied. Weavers frequently resort to taking advances from masterweavers. Such advances do not carry any interest.

The weaver is helped in his work by one or more assistants, usually children or adolescents. The assistant operates the shuttle for the border, while the weaver operates the loom, the shuttle for the body, and the shuttles for the buttas, (small motifs brocaded into the body of the saree) if any. Bobbin winding of the weft yarn is done by either the weaver or the assistant depending on circumstances, while warp joining and cutting are operations normally reserved for the weaver. There are, of course, no hard and fast rules for this division of labour, and an experienced assistant will normally perform more operations than a novice would. Operating a silk handloom, especially using throw shuttles,

is a task that requires considerable skill and training, and this training is imparted to persons who enter the industry as assistants. To work as an assistant is thus effectively to serve an apprenticeship and constitutes the only entry into the weaving workforce. Assistants therefore tend to start at an early age -- usually between 8 and 10 -- and work at the job for several years before being allowed to work as weavers on their own. During the survey we did come across two cases where individuals had joined as assistants at a much later age -- in their 20s -- but these were exceptions. The very nature of the technology thus makes it possible for the industry to make use of child labour, which, as will be seen, is a major part of the weaver workforce in Dusi.

Since silk yarn in Dusi is not sized, there are no preparatory processes undertaken by the weaver. Finished cloth is folded, packed in cardboard boxes provided by the masterweaver and returned to him.

Assistants to weavers may be either from within the household or may be hired workers. In the latter case, it is common for the weaver to give an advance to the assistant, the amount of this advance varying with the experience of the employee. Both advance and wage -- which is on a monthly basis -- are paid by the weaver, and the masterweaver has no direct relationship with the assistant. Advances are generally repaid only when the employment is terminated.

The weaving day begins usually at 8 a.m. and ends at 6 p.m. with an hour's break for meals. Weaving is stopped on all new moon days and for a 10 day period during Pongal, when bonuses are paid out. Apart from these, there are no regular holidays. During the rainy months of October-November, humidity makes the yarn sticky and vulnerable to breakages, and work either slows down or stops for several days at a

time. Children work to the same timings as do everyone else, and several of them, especially girls, also have to do some of the household chores at home before and after work.

The larger of the masterweavers, who control 50 and more looms in Kancheepuram and the surrounding villages, market their products directly to retailers who come from Madras and other centres in Tamil Nadu, from Vijayawada, Hyderabad, Bangalore, Bombay and Delhi, which are the main centres of demand for the sarees. A little exporting is done from Madras but as far as we were able to gather this is not very significant and is restricted to demand from Indian -- particularly South Indian -- expatriates in Singapore and nearby countries. Larger masterweavers often provide the yarn to weavers on the basis of firm advance orders from their buyers.

Smaller masterweavers sell their wares to traders in the Kancheepuram market, who in turn either retail directly or sell them to retailers from outside Kancheepuram. Small masterweaver operates with higher risks, since they have to estimate market demand for designs on their own, do not have firm orders to back up their production, and cannot extend credit beyond a point to either traders or to weavers; on average they get a lower rate of return on their investment.

Both large and small masterweavers control looms in Dusi, but the former are more prominent. Smaller masterweavers prefer to retain looms in Kancheepuram, since supervision of work in outlying villages strains their relatively limited resources.

Given the nature of the product and the raw material required to produce it, working capital outlay needed by masterweavers tend to be quite high. However, the rate of

return is also fairly high, especially for the larger master-weavers who purchase the yarn and zari at wholesale rates, operate their own dyehouses and warping mills and who are more economically flexible. One of the largest masterweavers in Kancheepuram, who controls 18 looms in Dusi, gave us figures indicating that his total working capital requirement to finance 150 looms he controls is about Rs.9 lakhs, which rotates once every three months and gives him a gross return of Rs.7 to 7.5 lakhs per annum. While this large masterweaver reported that he was not interested in the simpler -- and less expensive -- designs because they yielded a return of less than 12 per cent, the smaller masterweavers we spoke to indicated that their normal rate of return on investment was around 10 to 12 per cent.

In cotton weaving too there are no cooperatives in Dusi. The few working looms are devoted to the weaving of lungis of 40s x 60s counts. Weavers work either under masterweavers or independently, and shift from one to the other mode from time to time. One warp of cotton yarn produces eight lungis and can be woven within a week. Payment per warp is lower than that in silk. Investment in cotton looms is higher than that in silk looms, since the former use fly shuttles and have more parts. Weaves are generally simple, and are normally of chequered designs.

Structure of the Weaving Households

Table 42 gives the total number of households, persons, and workers that make up the weaving households of Dusi. Roughly one out of two workers in these households is a weaving worker, and the average number of dependents, i.e., non-workers, per worker is 0.63.

Crude worker participation rates among the weaving households is higher than that for the village as a whole, as is brought out in Table 43. It has already been noted

elsewhere in this paper that the CWPR in Dusi is much higher than that prevalent in rural North Arcot and rural Tamil Nadu. Among the weaving households, a greater than average proportion of the population is at work.

Quite a significant part -- 46.2 per cent -- of the weaving workers resident in Dusi are wage workers, most of these being assistants.

The caste composition of the weaving households is given in Table 44. The weaving households are predominantly Vannia Naickers, and there are no households belonging to the traditional weaving castes. The numbers of non-Naicker and Muslim weavers are indeed so low that for purposes of analysis we have grouped them all together under the head "other castes". It must be noted at the outset that not all the castes represented in Dusi have entered the weaving industry, and also that there are no weaving workers from among the Scheduled castes.

Slightly over one half of the total household belong to Group A, i.e. those that have weavers operating owned looms(Table 45); slightly more than a quarter are households of Group B, and Group C accounts for about a fifth of the households, Vannia Naicker households are more weighted in favour of Group A, while non-Naicker households are weighted towards Group C, implying that the non-Naicker households are relatively new entrants into the weaving industry.

In general, weaving households tend to be larger in size than other households in the village, as is shown in Table 46. Evidence from the 1960s shows that weaving households in Tamil Nadu generally tend to be larger than average. In Dusi, there may be several reasons for this phenomenon: first, handloom weaver households appear to be more stable than non-weaving households, where a certain amount of out-migration in search of work probably takes place. Secondly,

as will be shown below, weaving households probably have a certain amount of in-migration by young persons seeking to enter the industry, and this in turn inflates their size. Thirdly, the initially large size of households, particularly as shown by those of Group C, may be precisely one of the factors pushing its members into the weaving industry in order to augment household incomes. We shall be looking into each of these features below.

Group B households in general appear to be smaller in size than the other two, and at the all-caste level, seem to be of the same average size as non-weaving households. As shall be seen, Group B households are those characterised by wage labour; most of these households are young and with few children (see Table 47): the Group peaks in the age group 15-24, and there are relatively fewer persons in the less than 15 category (32.1 per cent) than is the case in either Group A or Group C. This would suggest that Group B households are in general freshly nucleated households, so that family size tends to be smaller.

The age distribution of the weaving households (Table 47) shows that the population is heavily weighted in favour of the younger age groups: fully 50 per cent of the population is below the age of 19, on the one hand, and the relative share of persons above 60 in the weaving population is less than that for the non-weaving households. A very high proportion of the population in Group C consists of children: 47.3 per cent is below the age of 14, and 58.3 per cent is below 19 years of age. In Group B households, as already mentioned, a high proportion of the population is in the lower working age group: 25.4 per cent of the population is between the ages of 15 and 24, and almost a third between the ages of 15 and 29. The agewise distribution among Group A households shows a peak in the 20-24 age group, but is otherwise not very different from the distribution for the village as a whole, although here too there is a bias in favour of children. The presence of children in

Group C clearly explains the high dependency ratio among these households.

The high weight of children in the population may well be due to in-migration of young persons, particularly boys, into these households in order to learn weaving. This hypothesis is further supported by the data on sex ratios, (Table 48) which shows that the sex ratio in the under 14 age group is weighted in favour of males particularly in Group C and Group B households, as also in the 15-19 age group for Group C households. Sex ratios for the non-weaving households in the age groups 15 to 29 suggest a certain amount of male single outmigration; for the weaving workers, the phenomenon seems more limited, being present clearly only in the age group 25-29. The high sex ratios in the 35-39 and 40-44 age groups are more difficult to explain: these age groups are not the ones where one would expect to find male single outmigration. For the 35-39 age group, the phenomenon seems to be due to high sex ratios in Group C, which shows (Table 47) a bunching of population in the age group, suggesting that some sort of female in-migration is taking place. Material collected in the survey do not throw any further light on this curious question. In general, sex ratios among the weaving households is more favourable to males than it is in either rural Cheyyar taluk (992) or in rural North Arcot district (983),[9] as well as in the non-weaving households (Table 48).

Most of the weaving households are native to Dusi. Table 49 provides some data on the 102 weaving households that have migrated into Dusi within living memory. Most of them, as would be expected, are Vannia Naickers: close to 30 per cent of the present Naicker weaving households and slightly over 40 per cent of the non-Naicker weaving households have migrated into Dusi.

Apart from in-migration of more than 20 years back, the largest movement into the village seems to have taken place between 6 and 10 years back, i.e., between 1973 and 1977 approximately. We do not have any information from the houselisting on the occupations of these households at the time of immigration, but some information is available from the sample survey: 9 of the 32 households covered by the survey have migrated into Dusi. Of these 9, two households of today were part of one household which moved into Dusi 18 years ago. Treating these two households as one, we get the result that 25 per cent of the sample households are of immigrant stock. In two of these households -- both of which have moved into the village less than two years ago -- weaving was carried on prior to entry into Dusi. For the others -- 75 per cent -- there was no contact with the industry prior to immigration. All households but one have moved into Dusi from nearby villages, the only exception being a family that moved in from Arkonam. As with the houselisting data, the sample survey data also make it clear that the bulk of migration has been recent: of the eight households, 5 have been settled in Dusi for less than ten years, and all eight households are of the Vannia Naicker caste. It is of interest to note that in all the households where entry into weaving took place after settling into Dusi, the two events followed each other in quick succession, indicating that the motivation for the migration may have been the opportunity that Dusi had to offer by way of entry into silk weaving.

Literacy levels among weaving households are considerably below that prevailing in nonweaving households. Yet, barring households of Group B, literacy levels in Dusi are better than those for rural Cheyyar taluk and rural North Arcot district for 1981 (See Table 50). On the whole, 64.3 per cent of the population in weaving households is illiterate compared with

a corresponding figure of 44.0 per cent for the non-weaving households. Although female illiteracy is generally higher than male, the position is distinctly worse in the case of weaving households, as is shown in Table 50. Among weaving households, those in Group A are the best off in both male and female literacy, with Group C households being not very far behind. Group B households clearly are the worst off in this regard.

One important reason for the low levels of literacy among the weaving households is that children begin to work at an early age. Evidence for this is found in the fact that while the dependency ratio among weaver households is 0.79 (Table 47) actual dependents per worker is around 0.63, as already mentioned. Data on schoolgoing among those aged between 5 and 14 (Table 51) also brings out the point: in aggregate, 42.6 per cent of the children in this age group go to school, the remaining 57.4 per cent either going to work or staying home taking care of domestic chores. Group A households manage to send more of their children to school than do the other two groups, but even here it is only slightly more than half. This seems to broadly fit the emerging picture that Group A households are better off than those in the other two groups, although even these cannot be described as being very rich. It is interesting to note that among the non-Naickers, female schoolgoers are quite marked. As to how this has come about is a question that requires further inquiry than has been possible in the present survey.

Finally, an indication of the incidence of child labour in these weaving households is apparent in an examination of the age-wise worker participation ratios (Table 52). On the whole 75 per cent of those aged between 10 and 14 and 16.5 per cent of those between 5 and 9 are at work in these households. The figure may be a bit of an understatement

in so far as our definition of worker will rule out those children who remain at home doing domestic chores while parents and other adults are at work. Adding in such persons, who are more likely to be female, gives a clear basis for the prevailing illiteracy among the weaving households: it is due simply to child labour among these households.

The CWPR data earlier cited clearly indicate that a significantly large part of the population in these households is at work. Table 52 indicates that on the whole there are more dependents in Group A households. In the other two groups, a significant part of the population outside of the usual working age groups is employed. Female CWPRs are also significantly higher in Groups B and C than among Group A households, and in all three groups female CWPR is higher than the village average (Table 43), as is the case among males.

Quite apart from the issue of educating children, it is clear that the average level of education among the literate population is quite low among the weaving households. Unfortunately it is not possible at present to compare the results of Table 53 with the corresponding figures for the district or the State, but the Table makes the point that about 59 per cent of the literate population in the weaving households have been educated only up to the primary level. Group B households are generally the least educated, while Group C households fall between Group B and Group A households. Levels of education among the non-Naickers is higher than among the Naickers in Group B and Group C households, but not in the case of Group A households.

Summarising the points made in the preceding paragraphs, we note the following:

- most of the weaving households are of the Vannia Naicker caste. Other castes form a small minority among the weaving households, and are later entrants into the industry;

- weaving households are typically large in size, with a lower than average dependency ratio, probably due to the relatively low level of single male outmigration from these households compared to non-weaving households and also due to the in-migration of children and young persons into the weaving households in search of employment in the industry;

- There is a preponderance of young persons in the weaving households, especially children and young workers;

- literacy data suggest that there is a high degree of withdrawal from education and hence a high level of illiteracy among the weaving households;

- age-wise distribution, literacy data, and work participation rates together suggest that there is a high level of participation in work by children in these households, the phenomenon being most marked in households where no looms are owned, and where an entry into the industry is being made through sending children out as assistants.

The general picture that is suggested is one of a weaving population characterised by its young people being increasingly drawn into the industry at an early age, this being more true of households that do not possess looms but are employed for a wage.

Structure of the Workforce

As has already been pointed out, roughly one in two persons in the weaving households of Dusi is a worker. Table 54 gives the magnitudes of the workforce in each group of weaving households. In aggregate, more than half the workers are associated with weaving, and this is the case for Naickers and non-Naickers taken separately as well. The ratio is the lowest among Group C households, and this is to be expected, since these are households making an entry into the industry while mainly pursuing other occupations. It is the highest among households of Group A, which own and operate looms. Group A households are clearly those that are to be regarded as having consolidated themselves in the industry.

Tables 55 and 56 gives a breakdown of the weaver workforce by the type of work done and whether they are wage or family workers, and the number of workers falling into each of the four work categories is given in Table 57. In order to make things convenient we have labelled the categories of weaving workers as follows:

OW : weavers working on looms owned within the household family labour

WW : weavers working for a wage

OA : assistants providing family labour on household looms

WA : assistants working for a wage.

The following points emerge from Tables 56, 57 and 58:

- wage workers constitute 46 per cent of the total weaving workers, and close to 57 per cent of these are wage earning assistants of the WA category;

- by far the bulk of the weaving workforce comes from the Naicker caste, and the remainder form a small minority;

- While 56 per cent of the Naicker weaving workers are operating their own looms, the corresponding ratio for the non-Naickers is much lower, at 33.3 per cent.

- Again, 56 per cent of the Naicker weaving workers are weavers, the rest being assistants; for the non-Naicker households, the majority, 60 per cent, are assistants to weavers. This would tend to further support the conclusion drawn earlier from Table 45 that the non-Naickers in general are relative newcomers into the weaving industry who have not yet consolidated their position (a) as weavers and (b) as weavers possessing their own looms, but are perhaps still in the process of entry into the industry through working as assistants.

Tables 58 and 59 relate to the age structure of the weaving workers by caste group and type of worker respectively. Other caste workers seem to be more concentrated in the lower age groups relative to the Naickers, again showing up the relatively recent entry by the non-Naickers into weaving. The overall age-wise distribution of the weaving workers shows a peak in the 10 to 14 age group. Normalising the distribution by dividing each element in the frequency distribution of weaving workers by the corresponding element in the frequency distribution of the population reduces the magnitude of this peak somewhat and shows more of a plateau structure over the younger age groups. Nevertheless, there is clear evidence that the number of new entrants into the industry in the two assistant categories is quite high. Whether this is because not all assistants spend their working

life in weaving, or whether it was that the survey was conducted at a time of a fresh wave of expansion into the industry is difficult at present to determine.

Some conclusions on the age of entry into the industry and into full fledged weaver status can be drawn from Table 59. Entry into the industry seems to be taking place as early as in the 5 to 9 age group, with the largest number occuring in the 10 to 14 age group. By the ages of 15 to 19, the number of assistants begins to drop off, and this shows particularly in the case of WA workers. Although some persons become weavers before they are 15, the largest number do not enter this status until they are between 15 and 19. The OA data in Table 59 obscures the picture somewhat, and this is due essentially to the predominance of female workers in this group. Breaking down the OA and WA categories by sex and age groups, as done in Table 60 shows that the male and female streams are different.

Females do not generally work as wage assistants beyond the age of 15; since very few of the females become weavers (See Table 57), it must be inferred that they get married and stop weaving, or help their husbands at home, so that female OA workers are to be found in the higher age groups also. On the other hand, the pattern for both OA and WA male workers show them shifting out of the category by about the age of 20.

Information collected during the sample survey also support the conclusions just drawn. Of the 63 persons for whom detailed information was collected, the average age of entry was 11.5 years. For those within the sample who have become weavers, the average age of graduation was 18.5 years. From accounts given by the weavers in the sample, it appears that most of them have spent at least a year, at times more, working as weavers for a wage with the same employer under whom they

worked as wage assistants before acquiring their own looms. This period was described to us as constituting training in main weaving. On average, workers remained as assistants for about five and a half years.

Sex ratio data for the weaving workers indicates that women are not very much employed in the industry, and those that are, as already mentioned, work as assistants on household looms. (See Table 61). At the same time, Table 62 shows that quite a significant number of women in these households work.

Table 63 deals with the distribution of workers by type of work done. Households that own and operate looms do not generally send out members to work for a wage on looms, and more than two thirds of the workers in these households are weaving workers. In households of Group B, where also the majority of workers are weaving workers, the larger part of the weaving workers are weavers. In households of Group C, it is the 'other workers' category that accounts for the largest part of the workforce. A slightly smaller proportion of workers in the non-Naicker category are weaving workers compared to the proportion among the Naickers.

Table 64 refers to child workers and their occupations. In aggregate, most of the working children in these age groups are employed as assistants to weavers, and earn a wage. Children below the age of 15 constitute 30.1 per cent of the weaving workforce resident in Dusi (See Table 58). Females not going to school are mostly at home, and generally these children look after household chores, in several instances doing so while both parents go to work. While a small number, more males than females, have found employment as weavers for a wage, there is only one person who is working as a weaver on a household loom. While the numbers associating

themselves with agricultural work -- either as cultivators or as agricultural labourers -- is quite low, a small but significant number find employment in non-weaving, non-agricultural occupations.

It is of interest to note that in the case of households of Type A, not only do the majority of the children go to school, very few of them are sent to work on looms for a wage compared to the other two groups. Type B and Type C households send out a large proportion of their children in these age groups to work as assistants for a wage.

As far as child labour is concerned, then, the point may be made that it is fairly widespread among the weaving households of Dusi. Within the weaving households, however, one section, i.e. those sufficiently well off to possess their own looms, have been enabled to send the majority of their children to school, while the remainder probably have no option but to augment household income by sending their children out to work, or to delegate to them the responsibility of household chores while adults go to work. In aggregate, this results in the majority of those in the age groups 5 to 14 not going to school, and about half of them having to work either for a wage or as family workers. The resultant withdrawal from education of children, particularly males, has probably increased in recent years as already noted.

Tables 65 and 66 relate to the workers coming into Dusi every day to work on the looms there, and to weaving workers of Dusi who go out of the village each day to work.

There are 73 handloom workers who come to Dusi from neighbouring villages to weave everyday; of these, 16 are wage weavers and 57 are assistants. The largest number of these workers come from villages in the immediate neighbourhood of Dusi -- Mamandur, Vagai, and Pallavaram. These

villages together account for 64.4 per cent of the 73 workers. The residential dispersal of the weaving assistants is greater than that for wage weavers: the former come from 16 villages or urban centres close to Dusi, while the latter come from 6 villages only. Of the 16 centres from which assistants come for work, 9 villages send only one person each; on the other hand, more than half the assistants come from Pallavaram and Mamandur.

Obviously the proximity of these villages to Dusi and the growth of the silk industry in the village has attracted individuals from neighbouring villages to Dusi in order to attempt an entry into the industry. At the same time, it is likely that the role of Dusi in training persons from other villages is a relatively recent phenomenon: weaving workers come from far fewer villages, and are highly concentrated in the Mamandur, Vagai and Pallavaram group, which account for 81.4 per cent of the 16 workers. The point is that Dusi is perhaps playing, vis-a-vis these villages, a role similar to that played by Abdullapuram and Ayyangarkulam vis-a-vis Dusi in the earlier decades. It can be reasonably expected that these villages will be the ones into which the industry will expand in the coming years.

Abdullapuram and Ayyangarkulam still play a significant role in serving as places of work for weavers from Dusi. Of 191 workers who go out of Dusi everyday to work on looms, 74.9 per cent go to these two villages. Of the two, Abdullapuram is the more important, accounting for 63.9 per cent of the 83 wage weavers and 45.4 per cent of the 108 paid assistants who go out of Dusi each day. (Ayyangarkulam accounts for 16.9 and 25.0 per cent respectively). The role of these two villages in training future weavers of Dusi is less important today than in the 1950s and 60s: today only 41.1 per cent of the weaving assistants in Dusi go out of the village to learn the trade, the remainder learning on looms within Dusi itself; on the other hand, interviews with older weavers gave the impression that practically all apprentices in the 1950s and early 1960s were sent to Ayyangarkulam or Abdullapuram.

Of the 83 wage weavers who work outside Dusi, 74 are from Group B households and 9 from Group A households. There are only 10 wage weavers in the Group A households, so that the largest part of this small number seem to have to go outside Dusi for work. Of the 108 paid assistants who go to work outside Dusi, 16 are from Group A households, 36 from Group B households and 56 from Group C households.

It has already been remarked that a significant number of the workers in the weaving households are involved in work not connected with weaving. Table 67 gives a breakdown of these workers by group and caste. Clearly the most important of these activities relate to manual work in agriculture, whether performed on owned and/or leased in land or on others' land. A problem with the data has been that the survey was conducted in a period of severe drought conditions, when there was little agricultural work to be done. Sample survey data indicate that the average number of days of work for agricultural labourers was very low, around 15 days in the reference year; nevertheless, since even such persons have been returned in the houselisting schedules as being agricultural labourers, we presume that the count of agricultural labourers will not be very significantly different in normal year.

Table 67 indicates that while the agricultural labour component was not insignificant, it appears largely to be the work of women, and this in turn explains the differences between the last column of Table 61 and Table 62. While agricultural labour activities seem to be widespread among households of Group B, non-weaving work in general appears concentrated in Group C, as already observed from Table 54.

Other workers are of several types, and Table 68 gives an idea of these occupations. Group B and Group C have a clear predominance of skilled workers, while traders are

important in Group A and also in Group C. In all these groups of households, at least one group of 'other workers' are in fact family workers: these are the ones minding cattle. We found that only one of the households minds cattle for a fee; in all the others, cattle tending involved herding the family's one or two head each day, and this was generally being done by the women and the children.

One of the reasons for the prevalence of nonweaving activities among the weaving households of Dusi is obviously the fact that entry into weaving has been made from some other occupational base, reflected in the fact that households of Group A have less of such activities than the other two groups. It is a bit difficult, in this context, to generalise on the role of other occupations among weaving households, from the evidence from Dusi. The point is that within the weaving households, weaving is not generally the sole occupation of the household. Moreover, in terms of the distribution of the workforce, weaving need not even be the major households occupation, and our division of the households into three groups has brought out this point.

Assets

Table 69 gives a picture of the distribution of looms among the weaving households, and Tables 70 and 71 provide the breakdowns for cotton and silk looms respectively. It has already been noted that only 177 of the 326 households -- or 54.3 per cent -- own looms. Of these, 5 households own looms that are not being used, so that only 175 households own active looms.

No household owns more than 4 looms, and the majority of the households possess only one loom each. Nevertheless, the distribution of looms among the loom owning households is somewhat skewed: the top 11.3 per cent of the owning

households possess 26 per cent of the total looms in Dusi, while at the bottom 69 per cent of the loom owning households own 47 per cent of the total looms. Thus, while some amount of unevenness in the ownership of looms exists, it is difficult to say that concentration at the top is very significant, given the relatively low numbers of looms per household involved.

As is to be expected, given the composition of the households, the largest part of the looms are owned by Naickers, and at 93.8 per cent, this ratio is only slightly higher than the concentration of Naickers -- at close to 90 per cent -- in the total weaver households and population.

Cotton looms are very few in Dusi, and are distributed among only a few households. Perhaps because earnings per loom tends to be less in cotton than in silk, the number of single loom households is proportionately less in cotton than in silk; it is also worth noting that one of the 5 households possessing one cotton loom also owns and operates one silk loom. Among the cotton looms also, it is the Naicker households that predominate.

The cost of looms has been going up over time. Sample data show that particularly in the 1980s, the average price paid per loom set up has risen sharply (See <u>Table 72</u>). It must be mentioned that prices vary considerably depending on whether the loom that is set up is new or is purchased second hand; distress sales take place at miserably low prices, and one person in the sample reported selling his loom in 1974 for Rs.85 to repay a loan at a time when the average price was of the order of Rs.300. At present, it costs about Rs.500 to Rs.1,000 to set up a loom. Of 29 looms for which data were collected, 11 (or about 38 per cent) were financed from within the household or extended family, and the rest by borrowing from master weavers.

There is, of course, very little physical deterioration of looms over time. The only parts that have to be changed periodically, the reed and the adai are done at the master weaver's expense; maintenance costs are often restricted to replacing broken shuttles (especially in households with children about) and replacing broken threads and strings in healds and supporting structures. Sample survey data showed that these recurring costs are not very high, and amounts on average to about Rs. 17 per loom in the year ending January 15, 1984.

Among the weaving households, 206 own 250.43 acres of land. The remaining weaving households either lease in or mortgage in some land or remain landless. (See Table 73). The bulk of the landowning households are Naicker households of Group A. In aggregate the land is about evenly divided between canal irrigated wet land and dry land, with a small part of the latter being lift irrigated.

The total land operated by the weaving households is significantly more (by 24 per cent) than the land owned by them, and works out to 310.54 acres. (For both ownership and operational holdings, we have included land owned or operated outside the revenue village). 181 of the 326 households -- or about 56 per cent -- operate some land or the other (See Table 74). Most of the operated holdings are quite small: no household operates more than 10 acres of land, and only 4 households (or 2.2 per cent of the operating households) are in the 7.5 to 10 acre class. 79 per cent of the 181 households operate less than 2.5 acres each, and 35.4 per cent operate less than 1 acre each, with a little over 16 per cent operating less than 50 cents. In short, there is little argument for concentration of land among the weaving households. Any large landholdings that there are, in this context, appear to be held by households of Group A. Prosperity through owning and operating handlooms thus seems to go hand in hand with prosperity in the operation of land.

45.5 per cent of the weaving households have no links with land, as is evidenced from Table 74. Landlessness is highest among households of Group B, where, as has already been seen, there is also a high complement of agricultural and other workers. Group B households thus clearly emerge as a group of pure wage worker households in the sense that most members in these households are at work, and work at one or the other manual task for a wage without having possession of the means of production, whether land or looms. Group C households, which are seeking entry into the handloom industry are better connected to the land than those of Group B.

The fairly close link between land operation and ownership of looms is also underlined by the last two columns in Table 74 which shows that while on the whole 55.5 per cent of the households operate land, the proportion is as high as 70 per cent in Group A households and lowest among Group B households; average size of holdings is larger in Group A than in the other two.

Table 75 gives the distribution of livestock among the weaving households. Households of Group A possess the largest part of the livestock among these households. Group B households have a marginally better position than those of Group C, but both of these come far behind the Group A households.[10/] As between the two caste groups, the Naickers clearly possess the largest proportion of the farm animals owned by these households, with the exception of goats and sheep.

The pattern shown by the distribution of livestock emerges more sharply in the distribution of farm implements, presented in Table 76. Even though the absolute number of implements is not very large, households of Group A own all of the hand sprayers, diesel pumpsets, tractors, trailers, power tillers, levellers and rotators owned by the weaving households, and are the dominant group in the ownership of

the other implements, including smaller items such as sickles and spades. Of the total of 10 pumpsets owned by weaving households, only one is owned outside Group A households. Group B and Group C households do not appear to have significant differences in the ownership of farm implements. Naicker households in general control virtually all of the implements owned by the weaving households. One Naicker household has a share in the ownership of a tractor and trailer; no other household among the weaving household owns a tractor or trailer.

The more numerous of the consumer items -- radios, bicycles, and watches -- to be found among the weaving households are again concentrated among Group A households, although not to the same extent as with livestock and farm implements. (See Table 77) The bulk of the few fans are also to be found among Group A households. Other consumer items, of which there are relatively fewer numbers, are about evenly divided between Group A and Group C households; wage weaving households do not possess any of these items, some of which are income augmenting -- musical instruments, wet grinders, sewing machines. The distribution of consumer items in general appears to be distributed between Naicker and non-Naicker households in rough proportion to their representation in the weaving households.

In sum, then it is clear from the above account of assets that households of Group A are easily the best off of the weaving households. Group B households, which consist largely of wage earners, possess relatively fewer assets, and households of Group C tend to come in between the two. Between the caste groups, the Naickers, who appear to have consolidated themselves in the weaving industry relative to the other castes, appear to have a significantly greater control over productive resources owned by the weaving households.

Some explanatory factors for this phenomenon are apparent when we turn to an examination of the annual incomes of the weaving households.

Household Income

The 10 per cent sample survey already referred to was made use of to estimate the income from each source of the weaving households. The reference period for the income questions was the year ending January 15, 1984. This period was chosen because bonus for weaving is paid at Pongal, and all accounts between masterweaver and weaver settled on that date.

Income from weaving is piece rated. The rate of payment, which is per warp of three saree lengths, is based on annual negotiations between the master weavers' association at Kancheepuram and the union of loom-owning weavers. Payment varies in accordance with the design of the saree, and ranges from a minimum of around Rs.400.00 to around Rs.800.00. Wage weavers are paid half the piece rate for each warp that they weave. Master weavers pay out a bonus of Rs.20 per warp woven over the year at Pongal time each year, but this bonus is not available to wage weavers. Wage weavers and assistants get material benefits at Pongal time in the form of a shirt and a dhoti. Assistants are at times given one meal as part of the wage contract; where they are not, they get a free meal on festive occasions.

Loom owning weavers have to undertake certain of the costs of production: they have to pay the wages of the assistants; replacement of parts of the loom, usually the ropes and heald threads, is also their responsibility; they also have to bear the costs of transport to and from Kancheepuram when they go to meet the master weaver; (this is not an insignificant cost: the bus fare on a round trip works out

to Rs. 1.50, and the weaving of one full warp can involve as many as ten to fifteen trips, especially when the master weaver opts to supply the yarn -- more often the zari -- in smaller lots at a time, or when he decides to change weft colours in the middle of a warp); mistakes in the weave require going to specialised darners in Kancheepuram who have to be paid. All these costs have to be netted out in calculating the actual incomes of weavers.

Average net income per household (See Table 78) was highest for households of Group A, followed by those of Group B and Group C, with the last two being considerably below the first.

The monthly unweighted average of the Consumer Price Index for Agricultural Labour (base 1960-61) stood at 515 for the period January 1983 to December 1984 in Tamil Nadu.[11/] Taking the Planning Commission estimate of the poverty line at Rs.76 per month per capita for rural areas for 1979-80 (when the CPIAL stood at 334 in Tamil Nadu[12/]) based purely on calorific requirements, the poverty line in 1983 should have been Rs. 117 per month or Rs. 1406 per annum. Only two households, both from Group A, reported incomes above this level per capita.

Alternatively, accepting the lowest possible poverty line at Rs. 15 per month at 1960-61 rural prices, and again using the CPIAL data for Tamil Nadu, the poverty line in current terms works out to Rs. 927 per capita per annum. On this basis, 31.25 per cent of Group A households, 12.50 per cent of Group B households and none of the households in Group C can be placed above the poverty line. Even on a minimal basis, then, the largest part of the weaving households were below the poverty line in 1983.

There are two points which have to be considered before discussing the implications of the above finding. First, the sample was not selected according to land owning/operating strata; as it happened, the sample of Group B households did not reflect the pattern of landownership and operation actually prevailing among the Group B population; for the population, 31.5 per cent of the households in Group B operated some land. In the sample, the corresponding figure was as low as 12.5 per cent. Sample data for the other two groups did not show any large variation from population data. Incomes per capita for households of Group B is therefore definitely understated.

Second, as has already been mentioned, the reference year for the income estimates was one of severe drought, when there was little income either from cultivation or from agricultural labour, so that per capita income would have been depressed relative to a normal year; land which would in a normal year be double -,if not triple-cropped, could be cultivated for only one season in the reference period. Apart from this, yields per acre would also be likely to be higher in a normal year in each season.

Taking these two limitations, especially the latter, into consideration along with the conclusions drawn from an earlier section of the paper that weaving households are not altogether without accumulated assets, the conclusion is clearly that in normal years average income of the weaving households from all sources would be higher than it was in 1983.

As to the amount by which normal annual incomes are higher than the ones reflected in the sample data is something difficult to say: adjustments would have to be made for an increased number of crops, higher productivity per acre, changes in product prices, as well as for number of days of employment of agricultural labourers, each of which would demand making assumptions that cannot be tested for acceptability.

However, the important point that does emerge from the data is that the weaving industry in itself does not always lift a household permanently above the poverty line, however this line may be constructed. Weaving households, at least in Dusi, continue to be vulnerable to the vicissitudes of nature as far as their annual incomes and consequently their standards of living are concerned.

The vulnerability of single loom households even where possessed of land was sharply brought out in the case of one Vannia Naicker household which possesses 1.69 acres of land irrigated by the tank. The household operates 1.07 acres of this land, having mortgaged out the rest a few of years ago. The fact that the land was not altogether dry permitted some income to be derived from the land, which we estimated at Rs. 1225 after netting out the costs of cultivation. The weaver who is the son of the head of household unfortunately fell ill for the largest part of the year from TB and was able to weave only one warp over the entire period. Although some income was earned through agricultural labour, this was not very much, and the total income accruing to this household of seven persons worked out to Rs. 1863, giving a per capita income of around Rs. 266. If the weaver had been well, and had woven the average of 8 warps or so, the income would have been around Rs. 935 per capita. It is true that in this case the household could have cut losses by employing a wage weaver for the interim, but it transpired that for quite a long time the family were not aware of the nature of the illness and so did not anticipate that the weaver would be down for so long a period.

At the same time, weaving does offer some means of ameliorating the depressed conditions of a drought; Table 79 gives an idea of the relative share of weaving income in total household income for each group of weaving

households. Even accepting the fact that in a good year this proportion is likely to be lower, the fact remains that income from weaving is a substantial part of total income, at least for the households that have been in the industry for some time, namely Group A and Group B households. The income augmenting role played by the silk weaving industry clearly explains the reasons underlying the entry, over time, of so many households into the industry in Dusi. In fact, the wide range of income sources of households of Group C, seen earlier in the examination of household occupations, underscores the point. These are typically households with very low resource endowments, seeking to augment income in every possible way, and where child labour in weaving provides as much as 25 per cent of household income.

The relatively low levels of income per capita of the weaving households also explains the fact of their indebtedness. Indebtedness data obtained from the sample survey is given in Table 80. Borrowings by Group A households are greater, per household, than among the other two groups. In all three groups, amounts borrowed per household consist to a substantial extent of advances from masterweavers or employers; this is the most so in the case of Group B households, possibly because these households have very little of jewellery or personal assets on which they can borrow. While data on the advances from master weavers and employers is fairly complete, the data collected on other types of borrowing may not be fully reliable. Taking the advances alone, it is worth noting that not all households go in for large loans, and some are quite heavily indebted, so that the variance is high for all the three groups.

Some households, of course, have managed to put aside some savings. Although data on savings was not covered exhaustively, three of the sampled households are saving

through the mechanism of a privately run chit fund, of which there are several organised within Dusi. One household has opened a savings bank account in a bank at Mamandur, but the amount deposited is very small, below Rs.30.00. Another household has placed in a fixed deposit some money paid to one of the household members as compensation for injury in a road accident. None of these households, however, is free of debt.

It has not been possible to separate incomes from weaving of the cotton and silk workers. None of the sample households in Group A were cotton weaving households, and the few lungi weavers in Group B are not paid a share in the masterweaver's coolie as for silk weavers, but are paid a fixed piece wage.

The annual earnings of weavers, whether operating their own looms or working as wage weavers, is crucially dependent on three factors: continuity of demand for sarees and hence their labour through the year; the wage rates per piece; and the type of designs woven over the year.

Discussions with masterweavers at Kancheepuram as well as with older weavers in the village gave the clear impression that over the last twenty years or so there has been virtually no market setback for Kancheepuram silks. On the contrary, the market appears to have been a growing one, with many new entrants into weaving. All the weavers covered in the sample reported to us that they never had to face periods of idleness between two warps, as masterweavers were usually quick to provide fresh yarn as soon as the old one was fully woven. The only exceptions to this were the cases where individual weavers had problems with masterweavers, resulting in quarrels and usually a parting of ways. The market has thus never created a situation where masterweavers have had to 'lay off' their weavers.

We also found that most weavers tended to weave the same designs — with only small variations — for long periods of time. This appears to be because each weaver then develops his own specialisation, and the adai, which is design-specific — and provided by the master-weaver — need not be changed before it wears out naturally.

Wage rates are fixed by discussions between master-weavers and weavers. The early growth of weaver organisation in Kancheepuram has been through the growth since the 1950s, of the cooperative movement which is now quite strong.[13/] Weavers outside the cooperative fold who own their own looms have formed closed shop unions, and one of these, led by Rathnam Chettiar, is considerably strong in Dusi. Wage rates are usually determined at annual negotiations between representatives of the Masterweavers' Associations and the Unions. These negotiations are usually around the wage rates fixed in the cooperative sector, and are initiated in the wake of agitations conducted by weavers. We found that such agitations have involved the whole hearted participation, not only by members, but by practically all weavers in Dusi. Since the cooperatives have been doing well and have been able to raise their wages substantially over time, the wage rates in the private sector have also been going up. Until recently private sector wages were a percentage of the cooperative wages, but from 1983, the two have been brought to par. The only difference now between the two is that the cooperatives offer a much higher bonus each year; this is a percentage of annual earnings of each weaver, and several cooperatives have paid out bonuses of 70 p. in the rupee.

Weavers in Dusi have also been trying to form a cooperative society. Support for a cooperative society is very strong; among the weavers covered in the sample survey, all were for such an organisation.[14/] In casual discussions we noted that a few weavers do not approve of the cooperative

since they prefer to work under a masterweaver from whom interest free advances are easily obtained, but this group is very much of a minority. A petition to the Director of Handlooms for the formation of a cooperative of silk weavers in Dusi was submitted in March 1983, and has been pending with the Government. Visits by the officers from the Circle Office of the DHT as well as by a bank inspector from Vellore have already taken place in this connection; the weavers were told by the Assistant Director, Handlooms, at Kancheepuram that their request could not be considered in 1983-84 because of an order from Madras stopping the formation of further new societies, apparently because of budgetary problems. The weavers hope that they will be able to start the society sometime during 1984-85.

Wage weavers in Dusi are completely unorganised. An attempt to form a Union in 1983 did not succeed, although it seems to have received support from wage weavers in Dusi, Abdullapuram and Ayyangarkulam. The need to form a Union is felt quite strongly in these villages: while the share of wage weavers here is 50 per cent of the piece rate, in villages on the other side of the Palar around Kancheepuram as well as in the villages around Arni and Tiruvathipuram, the wage weavers are paid 75 per cent of the piece rate, apparently because they have a strong functioning there.

Cotton weavers in Dusi are not organised in any fashion. As far as we could gather, no effort to mobilise them has been made.

It is clear that the weavers over time have made concerted efforts to raise their standard of living and income. While the general description of the socio-economic conditions of the weaving households makes it clear that the entry into weaving itself marks a step by a group of people to augment and enhance their income and to make it secure in the face

of a precarious agriculture, and who have also attempted to diversify their sources of income by moving into new activities -- from trading to non-agricultural labour to salaried jobs -- they have also attempted, perhaps feebly, to ensure a higher income from their weaving activity by participating in trade union activity, wage struggles, and attempts to form a cooperative society.

The utilisation of interest-free advances from employers and masterweavers has meant a fairly high level of labour mobility among weavers and assistants (Table 81), who shift from one employer to another in search of higher advances.

Assistants at looms are not paid any wage in the first few weeks of their apprenticeship; thereafter they are paid monthly pittances of Rs.10 to Rs.15, and this amount is gradually raised until, in about three years' time, they are earning around Rs.60 per month, and are able to take interest-free loans as high as Rs.1,000.

As with the weavers, in the case of the assistants also, the system of interest free loans, which are not repaid until employment is terminated, serves to create a system of partial indenture: the apprentice is tied down to his employer as long as he is unable to clear the loan.

While several of the masterweavers appear to maintain cordial relations with the weavers they employ, a few have developed a bad reputation. It was reported to us that one of the most powerful masterweavers in Kancheepuram has such a hold in the masterweavers' association that he is able to prevent any of his workers from finding employment elsewhere

should they choose to leave him, and has done so on more than one occasion. In one case, while the survey was on, a masterweaver tore up the cloth on the loom of one of his weavers at Dusi, and did not give him any work for three or four months. On the other hand, a worker like Muthappa Naicker has had a jacquard presented to him by his masterweaver for his high productivity two years ago.

Weaving Households : A Summary

The two most striking features of the silk weaving households in Dusi relate not so much to features local to the village as they do to those specific to the silk weaving industry.

The first is that there is no homogeneity about silk weaving households. Each of the three types of households identified in our study have characteristics that mark it off from the other two.

Group C households, the new entrants into the industry, are typically characterised by low asset and resource endowments. They are forced to seek every possible avenue to augment household incomes in order to survive as an unit, and as such their members are involved in a wide range of economic activities. In sending out some of their children to be apprenticed to looms, it is clear that these households are seeking a foothold in an industry where they can hope to do reasonably well if they can eventually progress to the level of households of Group A.

Group B households are the proletarian households. These households are typically young, have an even lower resource position than those of Group C, and are characterised by the fact that virtually all members work. Withdrawal of children from the educational system is widely

prevalent in this group. Women as well as the aged generally find employment as agricultural labourers, while the men weave for wages.

Group A households are those that have been in the industry for a while, and which have consolidated their position in it. Among these households, those having two looms and more are doing well enough to be able to expand their asset holdings. Even in households with only one loom, the work participation rate is lower than for the other two household groups: more of the children go to school, and fewer of the children are employed. Links with land, either through ownership or through operation are in general higher than in the other two household groups.

Yet none of the household groups, not even Group A, can be described as being rich as a group. It will be remembered that in terms of work participation rates and literacy, even Group A households on the whole were worse off than the village average, for instance. No single weaving household can be described as being among the major landowners in the village.

Why is it that while some households have been able to acquire looms and set themselves up well in the industry others have not and have to remain wage workers? Quite obviously a major factor in this has been that of initial endowments. Households that have been able to generate the necessary savings, or have had access to credit, have been able to operate their own looms. Others, unable to do so, have been forced to work for a wage, and the lower levels of earnings have effectively prevented them from acquiring their own looms. This has not, of course, been the case each and every time. We had several cases in the sample where a wage weaver had, at some point in his life, been operating

his own loom, but had lost it for a variety of reasons. Some had been driven into debt by illness or by expenditures for marriage and funerals, and had been forced to sell their looms; some had been unable to find assistants, or could not afford to employ any; at least a couple were unable to cope with the responsibilities involved in operating their own looms, and preferred to work as wage workers. In all cases, however, the loss of the loom also meant a fall in annual earnings.

It is important to remember that the prosperity of the loom-owning weaver households has been at best a relative one in comparison with the loomless weaver households. It cannot be asserted that the relative prosperity of one group of weaving households has been essentially at the cost of the prosperity or well-being of the other weaving households. An understanding of the relations between the different sections of the weaving households in Dusi carries as a prerequisite an analysis of the relationship between the masterweavers on the one hand and the set of weaving households on the other of greater depth than has been possible in the present survey.

The second feature of the industry is obviously the prevalence of child labour. The widespread prevalence of child labour is often pictured only in the match industry in Tamil Nadu and not much evidence of its magnitude is to be found in the literature on the weaving industry. Yet, not only is it widespread in the silk industry in Dusi, it is also not by any means on the decline. A combination of income prospects and the nature of technology have allowed for such a large child labour force, a significant part of which comprises wage earners.

With specific reference to Dusi, the pattern of growth of the industry probably illustrates very well the type of

changes that have been possibly for a community of people dependent on an agriculture that, though not necessarily backward, has nonetheless been proven unreliable in the past. It has been the good fortune of the villagers that a centre for a growing industry, requiring little investment by way of capital, and offering openings to those with the skills, has been located so close by.

If in the past twenty years or so, Dusi has taken advantage of the presence of silk handlooms in Ayyangarkulam and Abdullapuram, it is today the turn of the village to spread the industry to other, outlying villages. Quite obviously there must be a limit to this growth of the industry, determined by what the market for Kancheepuram silks can bear over the long term. As such, it is not likely that the story of Dusi -- where today more than half the households are involved in weaving -- will be repeated, or at least will be repeated all the time.

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1/ Slater, Gilbert (ed.) Some South Indian Villages p.89.

2/ Thomas, P.J. and Ramakrishna, K.C. (1940), op.cit., p.198. Veeraraghavan mentions that 3 out of the 10 workers were wage workers.

3/ AERC (1962), op.cit., p.2 and pp.34-35.

4/ Census of India, 1961, Vol.IX, Part XI-A: Handlooms in Madras State, Madras, 1964, Table VIII, p.109.

5/ The mundhani, also referred to as the pallu or pallav forms one end of the saree, and when worn, is the part that drapes over the shoulder.

6/ For a detailed account of the technology of silk weaving in Tamil Nadu, see Census of India (1961) loc. cit., p.113-114.

7/ *Zari* consists of silk yarn round which is wound silver wire. The resulting silver thread is then plated with gold. Low quality *zari* will have a high copper content and will turn black with time. There is a Government Zari Factory located at Kancheepuram whose capacity has been recently allowed to double from 1,000 to 2,000 marcs per month, but is yet not able to fully meet the demand of the cooperative societies to which it caters. Master-weavers have been finding it cumbersome to obtain the *zari* from Surat, the main centre for the *zari* industry in India, and to maintain good quality control; they have been trying to set up a *zari* factory at Kancheepuram itself in the private sector, and have found support in this from the cooperative societies as well.

8/ Kancheepuram is known not only for silk sarees, but also for skirt pieces of silk, and there are a few looms in Dusi that produce skirt pieces. The technology, the yarn used, and so on are practically the same as that used in sarees, and so the skirt piece weaving has not been taken up separately by us.

9/ Census of India, 1981, Series 20, Paper 1 of 1981, *Provisional Population Totals, Supplement.*

10/ The only apparent exception is the case of ducks. There is only one household among the entire weaving households that has gone in for duck tending, and this happens to belong to Group B.

11/ Compiled from relevant issues of *Indian Labour Journal.* Labour Bureau, Simla.

12/ See S.Guhan, *A Primer on Poverty: India and Tamil Nadu.* MIDS Popular Series, No.2, Hindustan Pub. Corp. Delhi 1982.

13/ For an interesting account of the growth of weavers' organisations in Kancheepuram, see Arterburn, Y., *The Loom of Interdependence.*

14/ The desire on the part of the weavers of Dusi to join cooperative societies is not new. It was noted by AKV in 1937 that "The weavers are in favour of a cooperative society on the model of the Button Producing Society at Tirupanangadu". See Thomas and Ramakrishna (ed.), p.198.

Table 42: Weaving Households in Dusi : Basic Magnitudes

Item		Number
1.	Number of weaving households	326
2.	Total population of these households	1679
3.	Total workers	1028
4.	Total weavers	578
	of which:	
4a.	supervisors of looms	3
4b.	weavers operating own looms	197
4c.	assistants on household looms	111
4d.	weavers working for a wage	115
4e.	assistants working for a wage	152

Table 43 : Crude Work Participation Rates, Dusi

(percentages)

Item	Males	Females	Total
Group A households	68.1	43.2	55.8
Group B households	79.3	60.1	70.3
Group C households	73.4	56.1	65.1
All weaving households	72.0	49.8	61.2
Non-weaving households	56.6	28.7	41.7
All households in Dusi	65.6	40.0	52.6
Rural North Arcot (1981)	58.0	31.8	45.0
Rural Tamil Nadu (1981)	59.8	34.5	47.2

Note: The last two rows are from Census of India, 1981, series 20, Paper 1 of 1981, supplement.

Table 44: Dusi : Caste-wise Distribution of Weaving Households and Resident Weaving Workers

Caste (1)	Number of weaving households (2)	Number of weaving workers (3)	Percentage Distribution of Col (2) (4)	Percentage Distribution of Col (3) (5)
Naicker	291	519	89.3	89.8
Naidu	6	13	1.8	2.2
Muslim	5	7	1.8	1.2
Chettiar	4	7	1.2	1.2
Yadavar	3	8	0.9	1.4
Udaiyar	3	3	0.9	0.5
Valluvar	2	4	0.6	0.7
Barber	2	4	0.6	0.7
Jogi	2	3	0.6	0.5
Mudaliar	2	2	0.6	0.3
Giramani	2	2	0.6	0.3
Asari	1	2	0.3	0.3
Pandaram	1	2	0.3	0.3
Nair	1	1	0.3	0.2
Iyengar	1	1	0.3	0.2
Total	326	578	100.0	100.0

Note: Figures include 1 household each from among Naicker, Chettiar and Iyengar castes where there are no workers but one person in each household supervising work on looms owned by the household.

Table 45: Dusi : Distribution of Weaving Households by Groups

(Number of households)

Caste	Group A	Group B	Group C	Total
Naicker	162 (55.7)	79 (27.1)	50 (17.2)	291 (100.0)
Other Castes	10 (28.6)	10 (28.6)	15 (42.9)	35 (100.0)
Total	172 (52.8)	89 (27.3)	65 (19.9)	326 (100.0)

Note: Figures in parentheses are percentages of row totals.

Table 46: Dusi : Average Household Size for Weaving and Non-weaving households

(No. of persons)

Caste	Group A	Group B	Group C	Overall weaving households	Non-weaving households
Naicker	5.4	4.5	5.3	5.1	3.9
Other Castes	4.8	4.5	6.1	5.3	4.7
All Castes	5.4	4.5	5.5	5.2	4.3

Table 47: Dusi: Weaving Households. Age-wise Distribution of Population in each Group

(Per cent)

Age Group	Group A	Group B	Group C	Weaving house-holds	Non-weaving house-holds	Dusi
0 - 4	14.5	11.2	9.3	12.6	14.0	13.3
5 - 9	14.1	10.2	16.9	13.8	11.5	12.8
10 - 14	10.7	10.7	21.1	12.9	11.8	12.5
15 - 19	8.9	14.2	11.0	10.6	8.0	9.4
20 - 24	10.7	11.2	2.8	9.2	7.2	8.4
25 - 29	8.8	7.5	3.9	7.4	8.3	7.7
30 - 34	5.3	5.2	3.1	4.8	6.2	5.4
35 - 39	6.0	8.2	8.5	7.0	7.3	7.1
40 - 44	5.4	4.7	7.6	5.7	4.9	5.4
45 - 49	5.1	5.7	5.1	5.2	5.0	5.1
50 - 54	2.5	4.5	2.5	3.0	3.4	3.2
55 - 59	3.1	2.2	2.5	2.8	3.6	3.1
60 - 64	1.8	1.2	2.5	1.8	3.3	2.5
65 - 69	1.5	1.0	1.1	1.3	2.0	1.6
Above 70	1.5	2.2	2.0	1.8	3.6	2.5
Dependency Ratio	0.79	0.58	1.13	0.79	0.86	0.82

Note: Dependency Ratio = (Population below 15 plus population above 59) divided by population between 15 and 59.

Table 48: Dusi: Weaver Households. Sex Ratio by Age Groups

(Females per 1,000 males)

Age Group	Group A	Group B	Group C	Weaving households	Non-weaving households	Dusi
0 - 14	1063	897	888	982	1115	1039
15 - 19	907	900	500	798	1972	1096
20 - 24	768	517	667	681	1824	992
25 - 29	1382	1308	2500	1451	1500	1479
30 - 34	441	750	2667	653	783	698
35 - 39	964	833	2333	1145	830	1000
40 - 44	1632	3750	800	1526	912	1219
45 - 49	880	643	1250	872	1000	925
50 - 54	1300	800	500	923	1143	1064
55 - 59	813	1250	286	741	1087	918
60 plus	731	636	818	708	934	843
Total	976	883	929	943	1147	1028

Table 49: Dusi: Weaving Households. In-migration into Dusi over time. Number of families where male head of household or ancestor has migrated into Dusi by number of years since in-migration

Caste	1 year or less	2-5 years	6-10 years	11-19 years	over 20 years	Total
Naicker	5	16	20	7	39	87
Other Castes	0	1	4	4	6	15
All	5	17	24	11	45	102

Table 50: Dusi: Literates among weaving and non-weaving Households

Household	Group	Sex	Literates as per cent of population in group and sex
Weaving	A	M	63.0
		F	20.6
		P	39.5
	B	M	39.0
		F	11.7
		P	26.2
	C	M	52.7
		F	19.3
		P	35.7
	All	M	52.2
		F	18.3
		P	35.7
Non-weaving		M	66.8
		F	46.6
		P	56.0
All Households of Dusi		M	58.3
		F	31.5
		P	44.7
Cheyyar taluk, Rural (1981)		M	48.2
		F	18.7
		P	33.5
North Arcot dt., Rural (1981)		M	48.1
		F	21.5
		P	34.9

Source: 1) Houselisting schedules

2) Census of India, 1981, Series 20, Paper 1 of 1981, Supplement.

Table 51: Dusi: Weaving Households. Percentage of Children in the Age Group 5 to 14 Going to School

Group	Caste	Male	Female	Persons	Absolute Number of persons
A	Naicker	67.6	41.1	54.6	218
	Other	40.0	33.3	36.4	11
	All	66.4	40.7	53.7	229
B	Naicker	31.7	26.7	29.6	71
	Other	25.0	40.0	30.8	13
	All	30.6	28.6	29.8	84
C	Naicker	35.1	15.2	26.2	103
	Other	47.4	35.7	42.4	33
	All	38.2	20.0	30.1	136
Total	Naicker	51.7	32.2	42.6	392
	Other	40.6	36.0	38.6	57
	All	50.2	32.7	42.1	449

Table 52; Dusi Age-wise Work Participation Rates, Weaving Households

Workers As per cent of Population

Age Groups	Group A Households			Group B Households			Group C Households			All Weaving Households		
	M	F	P	M	F	P	M	F	P	M	F	P
5-9	7.5	14.3	10.8	26.1	16.7	22.0	20.6	30.8	20.0	14.51	18.69	16.45
10-14	69.38	67.99	68.68	96.15	82.35	90.69	90.24	55.88	74.66	82.75	66.33	75.11
15-19	95.34	69.23	82.92	93.33	77.77	85.96	92.30	69.23	84.61	93.93	72.15	84.26
20-24	96.42	48.83	75.75	96.55	53.33	81.81	100.00	50.00	80.00	96.70	50.00	77.77
25-29	100.00	61.70	77.77	100.00	76.47	86.66	100.00	100.00	100.00	100.00	70.27	82.40
30-34	100.00	60.00	87.75	100.00	88.88	95.23	100.00	87.50	90.90	100.00	75.00	90.12
35-39	96.42	62.96	80.00	100.00	93.33	96.96	100.00	71.42	80.00	98.18	73.01	84.74
40-44	100.00	48.38	67.99	100.00	93.33	94.73	100.00	75.00	88.88	100.00	65.51	79.16
45-49	100.00	72.72	87.23	100.00	88.88	95.65	100.00	100.00	100.00	100.00	82.92	92.04
50-54	100.00	76.92	86.95	100.00	75.00	88.88	100.00	66.66	88.88	100.00	75.00	87.99
55-59	93.75	38.46	68.96	100.00	60.00	77.77	100.00	100.00	100.00	96.29	50.00	76.59
60-64	100.00	50.00	76.47	100.00	0.00	60.00	85.71	50.00	77.77	94.73	41.66	74.19
65-69	100.00	20.00	71.42	100.00	100.00	100.00	100.00	100.00	100.00	100.00	33.33	81.81
70	25.00	0.00	14.28	0.00	0.00	0.00	0.00	16.66	14.28	15.38	5.88	10.00

Table 53 Dusi : Weaving Households Distribution of Population by Level of Education

(Percentages)

Education Level	Group A			Group B			Group C			Total		
	Naicker	Other castes	All	Naicker	Other castes	All	Naicker	Other castes	All	Naicker	Other castes	All
Illiterate	52.5	56.3	52.7	68.8	57.8	67.6	61.2	42.4	56.3	57.9	49.7	57.0
Literate un-educated	0.9	0.0	0.9	0.0	0.0	0.0	0.4	1.1	0.6	0.6	0.5	0.6
Balwadi	8.1	2.1	7.8	6.5	4.4	6.2	8.0	4.3	7.0	7.7	3.8	7.3
Primary school	27.4	18.8	27.0	20.2	20.0	20.2	24.7	32.6	26.8	25.2	25.9	25.3
Secondary school	7.8	14.6	8.1	3.9	8.9	4.5	4.2	14.1	6.8	6.2	13.0	7.0
High school	2.7	6.3	2.9	0.3	6.7	1.0	1.1	4.3	2.0	1.9	5.4	2.3
P.U.C.	0.2	2.1	0.3	0.3	2.2	0.5	0.4	1.1	0.6	0.3	1.6	0.4
Degree/diploma	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1
P.G.Degree/diploma	0.2	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Table 54: Dusi : Weaving Households. Workers

Group	Caste	Total Workers	Weaving Workers as per cent of Total Workers
A	Naicker	483	66.3
	Other	32	71.9
	All	515	66.6
B	Naicker	254	53.5
	Other	28	64.3
	All	282	54.6
C	Naicker	179	35.2
	Other	52	36.5
	All	231	35.5
Total	Naicker	916	56.7
	Other	112	53.6
	All	1028	56.3

Table 55: Weaving Workers, Dusi. Distribution by Weavers and Assistants

(numbers)

Class of Worker and Sex		Naicker	Other	Total
Weavers:	Males	288	21	309
	Females	3	0	3
	Persons	291	21	312
Assistants:				
	Males	124	24	148
	Females	103	12	115
	Persons	227	36	263

Note : Excludes three supervisors.

Table 56: Weaving Workers, Dusi. Distribution by Family and Wage Workers

(numbers)

Class of Worker and Sex		Naicker	Other	Total
Family Workers:				
	Males	222	10	232
	Females	69	7	76
	Persons	291	17	308
Wage Workers:				
	Males	190	35	225
	Females	37	5	42
	Persons	227	40	267

Note : Excludes three supervisors.

Table 57: Dusi: Weaving Workers by Type of Worker

Type of Worker	Naickers	Other Caste	Total
OW Workers:			
Males	186	9	195
Females	2	0	2
Persons	188	9	197
WW Workers:			
Males	102	12	114
Females	1	0	1
Persons	103	12	115
OA Workers:			
Males	36	1	37
Females	67	7	74
Persons	103	8	111
WA Workers:			
Males	88	23	111
Females	36	5	41
Persons	124	28	152

Note : Excludes 3 supervisors

Table 58 : Dusi: Age-wise Distribution of Weaving Workers by Caste Groups

Age Groups	Naicker		Other Caste		Total	
	No.	%	No.	%	No.	%
5 - 9	28	5.4	4	7.0	32	5.6
10 - 14	123	23.7	18	31.6	141	24.5
15 - 19	80	15.4	17	29.8	97	16.9
20 - 24	73	14.1	8	14.0	81	14.1
25 - 29	55	10.6	3	5.3	58	10.1
30 - 34	46	8.9	1	1.8	47	8.2
35 - 39	42	8.1	2	3.5	44	7.7
40 - 44	23	4.4	0	0.0	23	4.0
45 - 49	24	4.6	3	5.3	27	4.7
50 - 54	7	1.4	1	1.8	8	1.4
55 - 59	11	2.1	0	0.0	11	1.9
Over 60	6	1.2	0	0.0	6	1.0
Total	518	100.0	57	100.0	575	100.0

Note: Excludes three supervisors.

Table 59: Dusi: Weaving Workers. Age-wise Distribution of Weaving Workers by Type of Worker

(Per cent)

Age Group in Years (i)	OW (ii)	WW (iii)	OA (iv)	WA (v)	Overall (vi)	Normalised Distribution (vii)
5 - 9	0.0	0.0	7.2	15.8	5.6	0.41
10 - 14	0.5	4.3	39.6	59.9	24.5	1.90
15 - 19	9.6	20.9	22.5	19.1	16.9	1.59
20 - 24	23.9	22.6	4.5	2.0	14.1	1.53
25 - 29	13.7	10.4	15.3	1.3	10.1	1.36
30 - 34	14.7	10.4	4.5	0.7	8.2	1.71
35 - 39	13.2	12.2	2.7	0.7	7.7	1.10
40 - 44	9.1	2.6	1.8	0.0	4.0	0.70
45 - 49	9.1	7.0	0.9	0.0	4.7	0.90
50 - 54	2.5	2.6	0.0	0.0	1.4	0.47
55 - 59	2.0	5.2	0.9	0.0	1.9	0.68
Over 60	1.5	1.7	0.0	0.7	1.0	0.20
Total	100.0	100.0	100.0	100.0	100.0	

Note: Normalised by dividing each element in column (vi) by the percentage of total population in the relevant age group for weaving households.

Table 60: Dusi: Weaving Workers. OA and WA Workers of All Castes, Age-wise Distribution

(numbers)

Age Groups	Males		Females	
	OA	WA	OA	WA
5 - 9	2	14	6	10
10 - 14	24	64	20	28
15 - 19	10	27	15	1
20 - 24	0	3	6	0
25 - 29	0	0	16	2
30 - 34	0	1	5	0
35 - 39	.0	0	3	1
40 - 44	0	0	2	0
45 - 49	0	1	1	0
50 - 54	0	0	0	0
55 - 59	1	0	0	0
Above 60	0	1	0	0
Total	37	111	74	42

Table 61: Dusi: Sex Ratio among Weaving Workers: Females per 1000 male weaving workers

Caste	Types of Workers				Overall
	OW	WW	CA	WA	
Naicker	11	10	1861	409	257
Other Castes	0	0	7000	217	267
All	10	9	2000	369	258

Table 62: Dusi: Sex Ratio among Workers in Weaving Households. Females per 1,000 male Workers

Caste	Sex Ratio
Naickers	694
Other Castes	386
Overall	650

Table 63: Dusi: Weaving Households. Distribution of Workers by Group and Caste

(Row-wise percentages)

Group and Caste	Type of worker				Other Workers
	OW	WW	OA	WA	
Group A:					
Naickers	38.9	1.9	21.3	4.1	33.7
Other	34.4	6.3	25.0	6.3	28.1
All	38.6	2.1	21.6	4.3	33.4
Group B:					
Naickers		37.4		16.1	46.5
Other		35.7		28.6	35.7
All		37.2		17.4	45.4
Group C:					
Naickers				35.2	64.8
Other				36.5	63.5
All				35.5	64.5
All Groups					
Naickers	20.5	11.4	11.2	13.5	43.3
Other	9.8	10.7	7.1	25.9	46.4
Total	19.4	11.3	10.8	14.9	43.7

Table 64: Dusi: Weaving Households. Distribution of Children above 5 and Below 15 years of age by Work Status

(Row wise percentages)

Group	Sex	OW	WW	OA	WA	Cultivators	Agrl. labourers	Other Workers	School Goers	Other non-Workers	Absolute Nos.
A	Males	0.86	0.00	22.41	9.48	0.00	0.00	0.86	66.38	0.00	116
	Females	0.00	0.00	23.01	5.31	1.77	0.88	7.08	40.71	21.24	113
	Persons	0.44	0.00	22.71	7.42	0.87	0.44	3.93	53.71	10.48	229
B	Males		8.16		53.06	0.00	0.00	2.04	30.61	6.12	49
	Females		2.86		37.14	0.00	2.86	5.71	28.57	22.86	35
	Persons		5.95		46.43	0.00	1.19	3.57	29.76	13.10	84
C	Males				53.95	0.00	0.00	3.95	38.16	2.63	76
	Females				31.67	5.00	1.67	6.67	20.00	35.00	60
	Persons				44.12	2.21	0.74	5.15	30.15	16.91	136
Total	Males	0.42	1.67	10.83	32.50	0.00	0.00	2.08	50.42	2.08	241
	Females	0.00	0.48	12.50	18.27	2.40	1.44	6.73	32.69	25.48	208
	Persons	0.22	1.12	11.61	25.89	1.12	0.67	4.24	42.19	12.95	449

Table 65: Dusi: Weaving Workers coming from Outside Dusi by Place of Residence: Percentage Distribution

Place of Residence	Weavers	Assistants to Weavers	Total
Mamandur	43.8	42.1	42.5
Vagai	31.3	7.0	12.3
Pallavaram	6.3	10.5	9.6
Narasamangalam	0.0	7.0	5.5
Dharmapuram	0.0	5.3	4.1
Pallavapuram	0.0	5.3	4.1
Kalpakkam	6.3	1.8	2.7
Perumbulimedu	0.0	3.5	2.7
Puthur	6.3	1.8	2.7
Chinnasamudram	0.0	1.8	1.4
Kalavai	0.0	1.8	1.4
Kancheepuram	0.0	1.8	1.4
Lakshmipuram	6.3	0.0	1.4
Movur	0.0	1.8	1.4
Pallipet	0.0	1.8	1.4
Uthiramerur	0.0	1.8	1.4
Walajabad	0.0	1.8	1.4
Not known	0.0	3.5	2.7
Total	100.0	100.0	100.0
Absolute total	16	57	73

Table 66: Dusi: Weaving Workers going daily outside Dusi for Work

(Per cent)

Place of Work	Naickers	Other Castes	Total
Abdullapuram	51.9	61.3	53.4
Ayyangarkulam	22.5	16.1	21.5
Vagai	8.1	0.0	6.8
Kancheepuram	1.9	3.2	2.1
Aripakkam	0.6	0.0	0.5
Pancharasanthangal	0.6	0.0	0.5
Uthiramerur	0.6	0.0	0.5
Not known	13.8	19.4	14.7
Total	100.0	100.0	100.0
Absolute total	160	31	191

Table 67: Dusi: Weaving Households. Distribution of Other Workers

Group	Sex	Row Wise Percentages				Absolute No.	Females per 1000 males			
		Cultivators	Agrl. labourers	Non-Agrl. workers	Total		Cultivators	Agrl. labourers	Non-Agrl. workers	Overall
A	Male	68.97	8.62	22.41	100.00	58				
	Females	47.37	42.98	9.65	100.00	114				
	Persons	54.65	31.40	13.95	100.00	172	1350	9800	846	1966
B	Males	25.81	19.35	54.84	100.00	31				
	Females	9.28	77.32	13.40	100.00	97				
	Persons	13.28	63.28	23.44	100.00	128	1125	12500	765	3129
C	Males	23.29	19.18	57.53	100.00	73				
	Females	31.58	51.32	17.11	100.00	76				
	Persons	27.52	35.57	36.91	100.00	149	1412	2786	310	1041
Total	Males	40.12	15.43	44.44	100.00	162				
	Females	30.31	56.79	12.89	100.00	287				
	Persons	33.85	41.87	24.28	100.00	449	1338	6520	514	1772

Table 68: Non-Agricultural, Non-Weaving Occupations among the Weaving Households of Dusi

(Numbers)

Occupation	Group A	Group B	Group C	Total
A. Manual Workers				
Masons	0	3	3	6
Blacksmiths	0	3	3	6
Beedi rollers	0	2	4	6
Tailors	0	1	4	5
Tinkers	2	2	0	4
Carpenter/Asari	1	0	2	3
Potters	0	0	3	3
Rice mill drivers	0	1	1	2
Barbers	0	0	2	2
Shoesmiths	0	0	2	2
Brushmakers	0	1	0	1
Umbrella repairman	0	1	0	1
Musician	0	0	1	1
Radio repairman	0	0	1	1
Motor rewinder	1	0	0	1
Painter	0	0	1	1
Poster sticker	0	1	0	1
Polisher	0	0	1	1
Lorry Driver	0	0	1	1
Domestic servant	0	0	1	1
Group sub-total	4	15	30	49
B. Petty Trade				
Paddy/rice sellers	0	1	4	5
Petty hawkers	0	0	4	4
Oil sellers	2	0	0	2
Oil cake sellers	0	0	2	2

contd...

Occupation	Group A	Group B	Group C	Total
Dry fish sellers	0	0	1	1
Milk vendors	0	0	1	1
Cattle brokers	0	0	1	1
Grocers	1	0	0	1
Group sub-totals	3	1	13	17
C. Shop Assistants	1	1	3	5
D. Salaried Employees				
Teachers	1	0	0	1
Clerical staff	1	0	1	2
Noon-meal scheme employees	0	3	1	4
Group sub-total	2	3	2	7
E. Others				
Priests	1	0	0	1
Building contractor	1	0	0	1
Group sub-total	2	0	0	2
F. Animal Tending family workers	11	10	5	26
Total	23	31	52	106

Source: Houselisting schedules

Table 69: Dusi: Distribution of looms among Loom-owning Households : (Silk and Cotton)

Group and Caste	Number of households owning				Total households	Total looms
	One Loom	Two looms	Three looms	Four looms.		
Group A:						
Naickers	111	32	13	6	162	238
Other	6	3	0	1	10	16
All	117	35	13	7	172	254
Group B:						
Naickers	5	0	0	0	5	5
Other	0	0	0	0	0	0
All	5	0	0	0	5	5
Group C:						
Naickers	0	0	0	0	0	0
Other	0	0	0	0	0	0
All	0	0	0	0	0	0
Total						
Naickers	116	32	13	6	167	243
Other	6	3	0	1	10	16
Total	122	35	13	7	177	259

Table 70: Dusi: Distribution of Looms among Loom-owning Households: Cotton Looms only

Group and Caste	Distribution of Households by Looms Owned				Total households	Total Looms
	1	2	3	4		
Group A:						
Naickers	5	1	1	1	8	14
Other	0	0	0	1	1	4
All	5	1	1	2	9	18
Total						
Naickers	5	1	1	1	8	14
Other	0	0	0	1	1	4
Total	5	1	1	2	9	18

Note: Households of Group B do not possess any cotton looms. Households of Group C do not possess any looms.

Table 71: Dusi: Distribution of Looms among Loom-owning Households: Silk Looms only

Group & Caste	Distribution of Households by Looms owned				Total Looms	Total house-holds
	1	2	3	4		
Group A:						
Naickers	108	30	12	5	224	155
Other	6	3	0	0	12	9
All	114	33	12	5	236	164
Group B:						
Naickers	5	0	0	0	5	5
Other	0	0	0	0	0	0
All	5	0	0	0	5	5
Total						
Naickers	113	30	12	5	229	160
Other	6	3	0	0	12	9
Total	119	33	12	5	241	169

Note: Households of Group C do not possess any looms

Table 72: Dusi: Cost of Looms over Time

Year of purchase/ setting up	Number of Looms	Average cost in current Rs.
1940-49	1	25.00
1950-59	0	-
1960-64	5	127.00
1965-69	6	127.00
1970-74	5	292.00
1975-79	5	350.00
1980-83	8	588.00

Source: Sample data

Table 73: Dusi: Land Owned by Weaving Households by Type of Land

(Acres)

Group	Caste	Land owned by type of land				Total land owned	No. of households owning land	% of Households owning land in each row
		Canal irrigated (Nanjai)	Lift irrigated (Thottam)	Dry (Punjai)	Information on type not available			
A	Naicker	94.27	9.66	97.46	1.45	202.84	154	95.1
	Other caste	1.50	0.00	0.81	0.00	2.31	2	20.0
	All	95.77	9.66	98.27	1.45	205.15	156	90.7
B	Naicker	7.87	0.00	10.54	1.25	19.66	22	27.8
	Other caste	0.00	0.00	0.00	0.00	0.00	0	0.0
	All	7.87	0.00	10.54	1.25	19.66	22	24.7
C	Naickers	12.99	2.16	6.51	0.66	22.32	23	46.0
	Other caste	0.50	0.00	1.80	1.00	3.30	5	33.3
	All	13.49	2.16	8.31	1.66	25.52	28	43.1
Total	Naicker	115.13	11.82	114.51	3.36	244.82	199	68.4
	Other caste	2.00	0.00	2.61	1.00	5.61	7	20.0
	All	117.13	11.82	117.12	4.36	250.43	206	63.2

Table 74

DUSI: FREQUENCY DISTRIBUTION OF WEAVING HOUSEHOLDS BY SIZE CLASS OF OPERATED HOLDINGS

Group	Caste	Distribution of Households by Size Class of Operated Holdings in Acres								Total House-holds operating land (No.)	Households Operating Land as % of Total households (%)	Averag size o Holdin (Acres
		Less than 0.5	0.5-1.0	1.0-1.5	1.5-2.0	2.0-2.50	2.5-5.0	5.0-7.5	7.5-10			
A	Naicker	14.4	16.1	22.0	11.9	8.5	18.6	5.1	3.4	118	72.8	2.01
	Other castes	33.3	0.0	0.0	0.0	33.3	33.3	0.0	0.0	3	30.0	1.81
	All	14.9	15.7	21.5	11.6	9.1	19.0	5.0	3.3	121	70.3	2.01
B	Naicker	14.3	32.1	17.9	21.4	7.1	7.1	0.0	0.0	28	35.4	1.15
	Other castes	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0
	All	14.3	32.1	17.9	21.4	7.1	7.1	0.0	0.0	28	31.5	1.15
C	Naicker	21.4	21.4	28.6	10.7	7.1	10.7	0.0	0.0	28	56.0	1.14
	Other castes	25.0	25.0	50.0	0.0	0.0	0.0	0.0	0.0	4	26.7	0.83
	All	21.9	21.9	31.3	9.4	6.3	9.4	0.0	0.0	32	49.2	1.10
Total	Naicker	15.52	19.54	22.41	13.22	8.05	15.52	3.45	2.30	174	59.8	1.68
	Other castes	28.57	14.29	28.57	0.00	14.29	14.29	0.00	0.00	7	20.0	1.25
	All	16.02	19.34	22.65	12.71	8.29	15.47	3.31	2.21	181	55.5	1.66

Note: Operated Holding defined as (Lands owned + Land leased in + Land mortgaged in) - (Land leased out + Land mortgaged out)

Table 75: Dusi: Distribution of Livestock among Weaving Households

(Row wise percentages)

Item	By Household Groups			By Castes		Absolute Numbers
	A	B	C	Naicker	Other	
Draught animals	85.2	9.1	5.7	96.6	3.4	88
Milch cattle	72.6	12.9	14.5	94.6	5.4	186
Calves	68.9	19.3	11.9	95.6	4.4	135
Goats & sheep	48.5	36.8	14.7	75.0	25.0	68
Poultry	65.4	16.8	17.8	81.6	18.4	185
Ducks	0.0	100.0	0.0	100.0	0.0	66

Table 76: Dusi: Distribution of Farm Implements among Weaving Households

(Row-wise percentages)

Item	By Household Groups			By Castes		Absolute Numbers
	A	B	C	Naicker	Other	
Wooden ploughs	76.9	12.7	10.4	98.5	1.5	134
Iron ploughs	81.2	7.2	11.6	98.6	1.4	69
Hand sprayer	100.0	0.0	0.0	100.0	0.0	2
Electric pumpsets	66.7	0.0	33.3	100.0	0.0	3
Diesel pump-sets	100.0	0.0	0.0	100.0	0.0	7
Tractors	100.0	0.0	0.0	100.0	0.0	1*
Trailer	100.0	0.0	0.0	100.0	0.0	1*
Power tiller	100.0	0.0	0.0	100.0	0.0	1
Carts	80.0	20.0	0.0	100.0	0.0	10
Levellers	100.0	0.0	0.0	100.0	0.0	2
Rotators	100.0	0.0	0.0	100.0	0.0	1
Spades	74.4	12.8	12.8	97.4	2.6	39
Sickles	63.6	27.3	9.1	90.9	9.1	22
Crowbars	50.0	0.0	50.0	100.0	0.0	2

Note: *One household has a joint share in a tractor and trailer.

Table 77: Dusi: Distribution of Consumer Durable Goods among Weaving Households

(Row-wise percentages)

Item	By Household Groups			By Castes		Absolute Numbers
	A	B	C	Naicker	Other	
Radios	85.1	6.9	7.9	87.1	12.9	101
Bicycles	73.1	11.5	15.4	83.3	16.7	78
Watches	87.0	6.5	6.5	85.7	14.3	77
Fans	75.0	12.5	12.5	87.5	12.5	8
Others*	50.0	0.0	50.0	25.0	75.0	12

Note: 'Others' includes the following:

Steel almirah	: 2
Tape recorder	: 2
Wet grinder	: 2
Musical instruments	: 4
Wall clock	: 1
Sewing machines	: 1

Table 78: Dusi: Distribution of Weaving Households by levels of annual per capita net income

Income per capita	Group A	Group B	Group C	Overall
No. of households with per capita income:				
Below Rs.500	25.0	37.5	71.4	38.7
Rs.500 - Rs.749	18.8	12.5	14.3	16.1
Rs.750 -- Rs.999	25.0	50.0	14.3	29.0
Rs. 1000 - Rs. 1499	18.8	0.0	0.0	9.7
Rs. 1500 - Rs. 1999	6.3	0.0	0.0	3.2
Above Rs. 2000	6.3	0.0	0.0	3.2
% of households with per capita income:				
Below Rs.927	68.8	87.5	100.0	80.6
Below Rs. 1406	87.5	100.0	100.0	93.5
Average income per capita (current Rs.)	904.80	668.12	426.91	746.00

Table 79: Dusi: Weaving Households. Percentage shares of different income sources in total annual net household income by household groups

Source	Group A	Group B	Group C	All Groups
1. Weaving	76.0	88.3	25.4	71.9
2. Cultivation and rent income from land	18.1	1.0	10.2	13.7
3. Agricultural labour	2.8	3.2	12.6	4.1
4. Other labour and salary income	2.3	3.1	51.3	8.8
5. Other income	0.9	4.4	0.4	1.5

Note: a) Row 4 includes salary income from employment as clerks, helpers in the mid-day meals scheme, from casual labour, flower selling, dry fish selling, mutton selling.

b) Row 5 largely consists of income from sales of milk from milch cattle. One household also gets interest income from money (originally compensation paid to one of the household members following a road accident) in a fixed deposit at a bank in Mamandur.

Source: Sample data

Table 80: Dusi: Weaving Households. Outstanding Loans, February 1984

Item	Group A	Group B	Group C	Total
Total loans (Rs.) of which,	59400	15730	9300	84430
Advances from masterweavers/ employers	24750	12150	4300	41200
Averages:				
i) indebtedness per household	3712.50	1747.78	1328.57	2638.44
ii) advance from masterweaver per household	1546.88	1350.00	614.29	1287.50
Coefficient of variation	75.83	82.67	79.48	85.94

Source: Sample survey

Table 81: Dusi: Labour Mobility of Weaving Workers: Frequency Distribution of Weaving Workers by the Number of Years per Masterweaver/ Employer over Entire Career up to January 1984

Years per masterweaver/ employer	% Distribution by Type of Worker		
	OW	WW	WA
Under 1	0.0	0.0	15.0
1 - 1.9	11.8	30.0	35.0
2 - 2.9	11.8	10.0	10.0
3 - 3.9	29.4	30.0	15.0
4 - 4.9	17.6	10.0	0.0
5 - 5.9	17.6	0.0	10.0
6 - 6.9	0.0	10.0	10.0
7 - 7.9	5.9	0.0	0.0
8 - 8.9	5.9	10.0	5.0
Total	100.0	100.0	100.0
Absolute No. of workers in sample	17	10	20
Average No. of masterweavers/ employers per worker	2.9	1.7	2.1
Average No. of years per masterweaver/ employer	3.8	3.2	2.3

Source: Sample Data

VIII : The Village Community

A statutory Panchayat was in existence in Dusi between 1954 and 1979 when, along with other Panchayats in Tamilnadu, it was dissolved. In successive elections, the Naickers have held 7 or 8 seats in the 12-member Panchayat in addition to the Presidentship. There have throughout been one or two Brahmin members and a Muslim with 2 or 3 places being held by other communities. The 1937 (AKV) survey referred to "communal trouble", presumably between the Brahmins and the others, coming in the way of village cooperation. The 1959 (AERC) survey spoke of the grievances of the people in Nathakollai because they had no electrified houses or a school. With the large scale reduction in the Brahmin population, and with greater attention being paid to the Nathakollai hamlet, the Dusi Panchayat is reported to have functioned quite effectively and harmoniously. Its main achievements have been in regard to water supply, street lighting and periodic repairs to roads. Since the dissolution of the Panchayat, a few works have been taken up in Dusi under the Food for Work, National Rural Employment Programme (NREP) and the Self-Sufficiency Scheme. These include the Dusi-Nathakollai road (1982), an extension to the school (1982) and improvements to the Sitheri tank. In the absence of the Panchayat, maintenance of street lights, public drinking water wells and hand pumps has been badly neglected. Recently, about 60 young men of the village have formed themselves into a Dusi Welfare Association to press the authorities to give adequate attention to the upkeep of these and other public facilities.

NR has been the President of the Dusi Panchayat in the last 14 years of its existence. He owns about 3 acres (with a pumpset) and can not be reckoned among the large farmers of Dusi. His influence is based on his leadership of the Naicker caste panchayat and his standing in that community.

His position is also recognised by the Brahmins and Muslims; they do not fail to consult him on any matter affecting inter-caste disputes with Naickers or village affairs as a whole. Because of his undisputed and long-standing leadership role, NR has also been the President of the Dusi-Mamandur Tank Farmers Sangham since 1977. He has taken up many village works on contract. He maintains close contact with the Dusi police station. The police look to him for help in tackling trouble-makers; interventions from him help to square up matters with the police; and per contra he has the potential to get people on the wrong side of the authorities. NR's mediatory services are much sought after and used; and are also reported to provide him with a source of income. In short, NR is an astute professional village politician.

There are separate Naicker caste panchayats in Dusi, Arumanthapettai and Nathakollai but the one in Dusi with NR as President is recognised as the principal one amongst them. The caste panchayats are made up of one representative from each street, referred to as a Perundhanakarar meaning literally 'a wealthy person' but interpreted more generally as a person of status. These panchayats are convened at fairly frequent intervals to settle disputes of various kinds. Examples are encroachments into another's land or house-site, defaults on loans, disputes arising from land transactions, minor thefts and quite often sexual improprieties. The latter usually take the form of illicit relationships. Nearly a dozen such cases were reported during the period of our survey and the panchayat dealt with them under certain broad principles. Adultery resulted in a severe fine or explusion from the village. Clandestine relationships between young unmarried persons were settled by marriage if both belonged to the same caste, overriding in some cases the objections of the parents; otherwise, the boy was temporarily packed off from the village and his family made to pay a fine to

the girl's. There were in some cases complaints of autocratic and arbitrary behaviour by the panchayat but most decisions get enforced. The Muslims have their own panchayat but they coopt NR to it if a dispute involving Naickers is to be settled.

Income from fishery rentals and tree auctions are credited to the Panchayat Union. The main source of communal income in Dusi comes from the practice of letting out the village lands for duck grazing after harvest. There is a duck farmer in Dusi owning about 70 ducks but the main lessees are people from outside the village who take the right in auction for grazing. Drought conditions in the last 3 years have reduced the income from this source; in previous years, (1978-80) the auctions were able to fetch Rs.4000 to 5000 per annum. The entire amount is used for festivals in the village temples and for Kudimaramath expenses. The annual re-enactment of Mahabharatha in the Draupadiamman temple in the village reported in 1916 is still being held. Chitra Pournami (full moon day in April-May) is a major festival in Dusi when the idol of Devarajaswami is brought here in procession from the Varadarajaperumal temple in Kancheepuram.

In 1916, PK reported that "there have been few crimes in the village and the police have had no hard task". AKV reported about 20 assault cases in 1935 and 1936. The records of the Dusi police station show that at present the largest number of cases relate to traffic offences on the highway and to prohibition cases involving drunken behaviour. Most of the theft cases relate to the stealing of aluminium and copper wire conductors from the electric transmission system and to theft of grain and utensils from the noon-meal centres. The location of the Police Station in Dusi has not been an unmixed blessing: we heard numerous stories of corruption, drunkenness and womanising in which the police were involved.

Inter-caste relations between the Brahmins and others, especially the Naickers, have undergone significant and interesting changes over the years. PK (1916), who was himself from a Brahmin land-holding family, portrayed the Brahmin landlords in a benevolent light: " ... in most cases, the Brahmin landlords of the place give their tenants food almost daily ... the remuneration of servants is but scanty, whether paid in money or kind. The servants do not grumble, for they often times obtain everything they want as a free gift from the landlords who are always very kind to their servants ... If the servant has a large family and his wages are too small to suffice for his livelihood, he has to borrow again from his landlord. And, as the landlord is always a kind creditor, the servants prefer to borrow from the master rather than from a stranger. In most cases the servant is often excused from paying the debt".

Individual cases of "kindness" apart, this was decidedly not the general impression of Brahmin landlord behaviour that we obtained from non-Brahmin tenants and agricultural labourers who remembered conditions 20 to 50 years ago. They gave many instances of Brahmin landlords giving only the one-sixth share to Al-Varam tenants even in the 1960s when it had been increased to 27.5 per cent; of landlords cheating in the measurement of grain; of 10 per cent deductions being arbitrarily made in grain payments due to tenants; and of their insisting on tenants and labourers doing domestic work. In village affairs, according to them, Brahmin hegemony was thoroughly autocratic: no non-Brahmin could put up a pandal (thatched awning) in front of his house; or sit in his thinai (raised veranda) when a Brahmin passed by; or wear a full dhoti while meeting the landlord; or bathe in one of the village tanks with kinsmen, after a family function, without prior permission from the Brahmin leadership.

It is only around the early 1960s, that perceptible changes seem to have taken place in the village power structure. By that time, the Brahmin population and land-ownership had considerably dwindled, the Naickers had emerged as a sizable land-owning community and the DMK had begun to be active in State politics. Brahmins have shrewdly adjusted themselves to the new power relationships over time. At present, VS their leading figure, maintains close rapport with NR. He sounded grateful for being accepted as a peer by the Naicker landowners; felt relieved at being consulted by them; and consoled himself with the thought that Brahmins did not have half as much trouble in the village from non-Brahmins as his kinsmen had in the towns to which they had migrated. In fact, Brahmins still count for a great deal in Dusi where, as we saw earlier, they remain substantial landholders.[1]

All the three major political parties in Tamilnadu -- the Congress (I), DMK and AIADMK - have their supporters in Dusi. The left parties are not active here. In past elections, Dusi has favoured the DMK, the sitting legislator of that party being influential in the area. Originally, most of the landlords were Congress sympathisers; the Brahmins remain so but the Naickers in general have shifted their allegiance to the DMK.

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1/ An interesting vignette of the Brahmin world-view in Dusi can be found in Dilip Hiro Inside India Today Monthly Review Press New York 1976 pp.12-14.

IX : Dusi : Then and Now

The motivation for the resurvey of Dusi has been three-fold: to study changes with reference to data available in earlier surveys; to describe the village as it is today; and, in particular, to obtain a somewhat detailed idea of the socio-economic conditions of weaving households. Subject to limitations of data, method, time, and competence, we have presented the evidence on major individual aspects of village society and economy in the preceding sections. An overview is attempted in this section.

With reference to the bench-mark of PK's original survey in 1916, Dusi has seen considerable population growth and occupational diversification. The span of about seven decades between then and now could be divided into two broad periods. Upto the 1950s, livelihoods in Dusi have mainly depended on agriculture, specifically the cultivation of paddy based on irrigation from its tank. Population growth in this period has been of the order of one per cent a year of less suggesting that the village was not able to retain the natural increase of its people. In the last three decades i.e. since about the 1950s, population growth rates have nearly doubled. The occupational structure has visibly changed with the emergence of weaving as a major secondary or alternative source of livelihood. Concurrently, there has been a growth in non-agricultural employment (other than weaving) which is a reflection of growth in incomes in agriculture and in weaving. Dusi's proximity to Kancheepuram, a major town with a present population of about 150,000, has helped in providing casual and permanent outworking opportunities.

Dusi has benefited from a relatively dependable irrigation source in the historic Dusi-Mamandur tank, a monument to the engineering statesmanship of the Pallavas. By storing

water from one season to another, the tank has provided for a measure of continuity in cropping in years in which rainfall has been adequate, but for this source, Dusi with limited cultivable land would not have been able to support its levels of population which has depended on agriculture alone until about two decades ago. Tank irrigation continues to be the mainstay of agriculture in Dusi as there has been little growth in lift irrigation from pumpsets. The new technology of HYVs, chemical fertilisers and pesticides which has spread since the 1960s has however been a factor in raising crop productivity and in improving the intensity of cropping although data limitations have not permitted a quantification of its precise impact.

We have noted the improvements that have occurred in literacy, housing, electrification, water supply, health and communications. Such progress as is noticeable in these indicators has to be qualified in many respects. In the last three decades, male literacy has doubled and female literacy has grown seven-fold from a very low base. However, literacy is differentiated among castes and as between males and females. While there is near total literacy among the 'forward' castes (such as the Brahmins, Mudaliars and Chettiars), castes engaged in traditional castes and occupations, and the populous cultivating caste of Naickers, are way behind perhaps by a generation or more at current rates of progress. Literacy is also thin with about 50 per cent of school entrants dropping off at the primary stage or earlier and another 30 per cent leaving school at the elementary level (Class 8). It has produced little demand for subsequent non-formal education in terms of library-use or an interest in educational television. With growth in population, the pressure on house-sites has become intense to the detriment of the village ecology in terms of the cutting down of trees and a major encroachment on the tank bed. Many houses are shared by more than one

family. The spread of electrification is encouraging. More than half the number of houses in the village are lit and electricity has enabled longer hours of work on the loom. Public water supply facilities have expanded but the problem with them, as with street lighting, is in the actual functioning: there isn't enough water in the taps and most street lights do not burn. There is a keen demand for curative medical services in Dusi; in the absence of public facilities, a new breed of quacks, drawn mainly from para-medical personnel, have emerged to cater to it.

Dusi has come to notice as a village where "all the land" had been owned by Brahmins at one time and in which, with the emigration of Brahmins, most of it has passed into the hands of other castes.[1/] Neither statement is fully correct. At the time of the original settlement in 1913, the Brahmins who were then about a quarter of the population owned about two-thirds of land; seventy years later, they are no more than 2.5 per cent in population but continue to retain 28 per cent of land. Divestiture of land by Brahmins, although appreciable, has thus not proceeded pari passu with migration from the village. It has however reduced concentration of land ownership. Concurrently, there has been a proliferation of landholdings in the category of small and marginal farmers. In the last two decades, incomes from weaving have helped the erstwhile, mainly Naicker, tenants to acquire some land of their own. Even so, landlessness is high in Dusi: about 59 per cent of all households do not own any land in the village or outside; it is particularly high (82 per cent) among the castes associated with traditional crafts and services. The top 3 per cent of households, representing large and medium farmers, own 37 per cent of land owned by residents and 52 per cent of pumpsets. Looms however are widely distributed: the landless and small farmers own 95 per cent of all looms in the village indicating that weaving has provided a substantial source of support to this class of the population.

Land under tenancy which was of a very high proportion in 1916 (over 70 per cent) has sharply decreased (23 per cent now). The passage of ownership from non-cultivating Brahmin landlords to self-cultivating peasants and the resumption of tenancies following tenancy legislation in the 1950s would appear to explain the trend. Most of existing tenancies are <u>Al-Varam</u> or labour tenancy which has strong features of direct cultivation. With the decrease in leased-out land, the average size of tenancies has become a third of what it was in 1937. It is clear that many of the tenant families of 1916-37 must have joined the ranks of landless agricultural labour.

Available evidence suggests that, despite the emergence of weaving as a major supplementary source of livelihood, the numbers of agricultural labourers has gone up. Weaving has however tended to increase female participation in agricultural labour. Real wages in non-harvest operations have remained the same in this long span of seven decades but harvest wages have doubled. The level of earnings from agriculture wage incomes varies a great deal depending on seasonal conditions that determine cropping intensity and cultural practices (rain-fed broadcast paddy or irrigated transplanted). Only harvest wages are paid in kind. In a drought year, wage labourers face acute distress as their earnings are depressed on account of low employment levels while open market prices of rice shoot up. Even with some supplementary income from casual labour in Kancheepuram, agricultural labour households are well below the poverty line. So are craftsmen and most marginal cultivators.

Non-agricultural occupational opportunities have expanded from a variety of sources since the 1960s. Benefits from this avenue have mostly gone to the "forward castes", and to a lesser extent to Naickers. The castes associated with traditional crafts and services (carpenters, blacksmiths, washermen, barbers and potters) have either emigrated or have continued in these occupations.

The emergence of weaving since about the early 1960s is a major aspect of the transformation that Dusi has undergone. Some specific factors can be identified in accounting for the entry of nearly half the households into weaving: The unreliable and uncertain (though not backward) agriculture of Dusi has been a push factor; Dusi's location close to the weaving villages of Iyyangarkulam and Abdullapuram has enabled its young people to learn the skill under apprenticeship; a third factor is the marketability of silk handlooms, a product with a sustained demand unaffected by competition from powerlooms, with Kancheepuram providing a major outlet. In this background, those who have taken the major step of entering the new profession have been generally those most impelled to make the transition on account of low agricultural incomes and large households.

The weaving households of Dusi are not homogenous and entry into the industry has not meant the same thing to all. Households which posses their own looms and either work on them or employ wage weavers have done relatively well in terms of asset accumulation, income, their capacity to educate children and so on. On the other hand, households of wage workers in weaving are at a distinctly lower level of income, have less assets, and are characteristically labouring households.

Weaving households also depend on agricultural incomes, either as peasants or more often as agricultural labourers; they have retained their links with agriculture and it is not as if they merely fall back on weaving in a bad year. A distinctive feature is the extent of child labour in weaving households. Children below age 15 constitute about 30 per cent of the resident weaving work force in Dusi. Inevitably, this has had its effect on schooling and literacy in which respects weaving households compare unfavourably with others.

The absence of village cooperation in the institutionalised form of a Panchayat, or even informally, in Dusi was a feature commented upon in earlier surveys. With the large scale emigration of Brahmins, Dusi seems to have achieved greater social cohesiveness under the leadership of the dominant Naickers. During its tenure the village Panchayat has been reasonably effective. Its dissolution is certainly a factor in the poor maintenance of water supply and street lighting facilities. Cooperation is evident in the regulation and maintenance of irrigation from the tank. In the absence of a leading landlord or land-owning group, village politics is run by a professional in the art. The ties between the informal workings of the caste Panchayat and formal authorities such as the police are close. Since Dusi does not have a Harijan colony, caste Hindu-Harijan relations are not an issue. But it does continue to have a small well-entrenched Brahmin agraharam. The Brahmins, once autocratic and high-handed, have progressively come to terms with the Naicker elite and continue to maintain a relatively strong position in village affairs through a lower profile.

Dusi has thus witnessed change and growth, in fact a transformation as far as weaving is concerned. We have no hard information on the extent to which this process might have resulted in a reduction to poverty. It is clear however that present levels of poverty, among agricultural, weaving and other non-agricultural households, are so high --- of the order of 60 per cent or more --- that any improvement in its trend over time offers little practical consolation.

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1/ See C.J.Baker An Indian Rural Economy 1880-1955: The Tamilnadu Countryside Oxford University Press 1984 p.191 based on M.R.Haswell Economics of Development in Village India Routledge and Kegan Paul 1961.